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TEACHERS' MANUAL FOR HUMAN GEOGRAPHY

BOOK II REGIONS AND TRADE

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CHICAGO PHILADELPHIA TORONTO

FOREWORD

BY J. RUSSELL SMITH

This Manual was made to aid teachers who use "Human Geography," Book II, Regions and Trade. The book will be used by teachers who have had different kinds of preparation—some will have graduated from college; some others will have had special training in the art and science of teaching; some will have traveled in this and in foreign countries. But many who teach this book will begin as I did with my first class in geography, having none of the above-mentioned advantages and only so much geography as remained from my study of it in the elementary school.

Since this Manual has been prepared to aid all kinds of teachers in all kinds of schools, it is at once plain that one teacher is not expected to use all of the suggestions it contains. It includes an abundance of specific and practical teaching helps. *The teacher is urged to consult this Manual, section by section, before teaching or assigning the corresponding parts of the book.* It is quite likely that most teachers will be able to use some of the helps that are suggested.

There will be much difference in the amount of work that can be accomplished in different schools, and accordingly this Manual contains suggestions for minimum essentials, things that should be attained even where teachers are crowded for time and limited in equipment. Beyond this, other suggestions are given for those who have more time for geography, and who have access to libraries and other teaching aids. The distinction between *minimum essentials* and what *might* be taught should always be kept in mind.

A small but well selected general bibliography on methods of teaching geography and on subject matter has been made (pp. 29 and 30). One part lists books for the teachers' personal use, and the other part those which the pupil may use. A valuable aid to the teacher is given in the grouping of references by subjects, p. 28.

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TEACHERS' MANUAL *for* HUMAN GEOGRAPHY

BOOK II

REGIONS AND TRADE

CHAPTER I

THE AIMS OF MODERN GEOGRAPHY INSTRUCTION

1. The teacher should strive to develop in the pupil a real interest in and sympathetic understanding of the people of his own and other communities. Through the study of Geography he should be led to realize the dependence of man upon the natural conditions of the land in which he lives as well as upon his fellow men; the complex web of inter-relationship which has been spun; and the consequent interdependence of man. He should sense the obligation of individuals to the larger group.

2. The teacher should aim to have the pupil develop such a mastery of geographical facts and principles as will enable him to understand these facts and principles whenever he meets them.

3. The teacher should so plan the method of instruction as to insure the development of an adequate skill in the use and interpretation of maps, graphs, charts, and other tools of geographical knowledge.

5. The teacher should see to it that the pupil becomes acquainted with the essential vocabulary of the subject, and that geographical terms are enriched by wider association.

6. The teacher should strive to develop in the pupil habits of careful observation, interpretation, reasoning, and study.

CHAPTER II

THE MEANING OF REGIONAL HUMAN GEOGRAPHY

1. **Man is the center.**—A careful consideration of these aims will indicate clearly that man is the center of this study of Geography, and that the real value of geographic facts consists in their usefulness in enabling us better to understand man in his relation to his environment. Hence our New Geography is a study of human relationships. Surface, climate, natural resources, and so forth, the natural factors of the physical environment, are to be interpreted in the light of their effect on the life and activities of man.

2. **Regional Geography defined.**—"The study of the World by divisions that have unity with regard to the conditions affecting human life is Regional Geography. It treats of the natural regions,—mountains, valleys, coastal plains, and so forth, each as a geographic unit—a natural region. Man living on the earth lives in relation to a corn belt, a wheat belt, a trade or manufacturing region; to semi-arid

pastures, or to some other natural region. The natural region in which a modern man lives is the fact that often decides his occupation, and perhaps his future prosperity."

The teacher should read carefully the section "To Teachers," pp. iv, v, vi, of Human Geography, Book II.

3. **It simplifies study.**—The study of Geography by natural regions is a much simpler method than that which used the political region as the unit. Since the center of the new Geography is man at work, it greatly simplifies our study if we are concerned at any one time only with those people who are doing the same thing. So far as the geographical controls which determine why men live as they do are concerned, we find that they are alike for similar regions. It matters not whether the coal miner is at work in the mountains of Pennsylvania, of West Virginia, or of Europe, his work is the same.

The study and understanding of a region makes easy the understanding of other similar regions. The method of raising cotton or of mining coal once understood makes unnecessary the repetition of detailed teaching when this subject comes up in connection with other regions.

4. **Political units are treated.**—The regional method of teaching Geography does not mean that political units are neglected. Natural regions will always be seen as covering certain states and countries. The association center, however, will be the industry, the product of man's effort, as he attempts to make use of the natural conditions about him to supply his needs for food, clothing, shelter, and so forth. Such a correlating center being much simpler and constant will make for better understanding of what it is all about, and also for greater likelihood of retention and subsequent control.

CHAPTER III

GENERAL METHOD

1. **Approach.**—In the study of practically every natural region there is a point of contact between the life of the people in the region being studied and the children who are studying. Often this is a rather direct contact, in that the children are using some of the things which are the results of the labor of the people of the region. One of the surest ways of finding an interesting approach to the study of a region is to see if in the satisfaction of the six needs of mankind there is not at least some one thing contributed to the pupils in the class by the people living in the region being studied. The grocery store, the produce store, the dry goods store, the

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drug store, will be found to contain many things brought from all corners of the earth. Even where such direct contacts cannot be discovered there are indirect contacts which will serve almost as well. Sometimes it will be an historical incident, an element of travel, a news item in the morning paper, an article in a magazine. The children are fond of motion pictures. They will enjoy discovering why southern California is especially suited to the development of the film industry. They are fond of dancing. Illustrations such as the Rain Dance or Corn Dance of the Indians of southwestern United States may be used to develop the effect of environment on the culture of the people. In other words, approach the lesson through the human interest of the child. There is a danger at the present time that the educational pendulum has swung too far, and that more emphasis has been placed on arousing interest than in giving content. Facts are tools that the pupil must have at his command if he hopes to acquire skill in interpreting human conditions. Geography at last is recognized as science, and the teacher in the elementary school must aim to establish fundamental principles of interpreting surface, climate, soil, etc., that the child can use in the business or educational world.

2. **Content.**—The content of the text is arranged in a pedagogical manner, so that it would be quite possible to organize a course of study around it following very largely the arrangement of the author. It is written in such a style that pupils of the grades for which the book is intended are easily able to read the text with a minimum of explanation. The teacher who is in doubt as to her ability to handle the material presented will find that her doubts will be dispelled if she so adjusts her work as to introduce her pupils to the text, and then permit them to read it as one would a story book. The use of the maps and charts will require development, but once the pupils begin to understand how to make use of these, their simplicity and attractiveness will insure their interest and use.

3. **Map Study.**—The teacher should aim to establish the map habit by seeing to it that maps are made use of at every opportunity. Both teacher and pupil should be map-minded. The pupil should be led to realize that maps present real problems that can be answered from the maps themselves, and that the text supplies information that the map cannot give. Different kinds of maps supply different information. Pupils should be taught in the study of each region to investigate all the maps. The same map should be used many times. As facts are developed the pupils should be encouraged to put them on outline wall maps and on their own individual maps. Keep such maps for permanent use and reference. A notebook should be used for this purpose. Pupils

should be encouraged to bring maps used in advertisements, such as Seattle uses to advertise her nearness to Asiatic ports, or as newspapers use to illustrate expeditions. Pupils should be taught to make rapid sketch maps to illustrate a coastal plain, a harbor, a delta, or to show the locations of cities such as New Orleans, Rio de Janeiro, etc.

Printed outline maps of the continents, of the more important countries, and of sections of the United States, may be purchased from publishers, or at school supply houses. Where it is impossible to secure these, or where funds are not available, it is a very simple matter for the teacher to provide such maps for herself. If the teacher possesses a mimeograph or a rapidograph it will require but a few minutes' time to trace the outline desired on the stencil sheet or copy sheet, and then run off the required number of copies.

Or pupils may be permitted to trace maps from the text. This may be done in such a manner as not to injure the book in any way. Another method is to have the pupils cut out maps in light cardboard from patterns which either they or the teacher may have prepared. Such outlines will last for a long time, the pupils placing the cardboard map on paper and tracing a pencil line around it whenever a map of that particular country or section is required.

4. **Locations.**—Sailor Geography formerly played too important a part in the study of Geography. There is no virtue in being able to point out and name the capes and peninsulas on the east coast of North America, but neither is one to be commended for being ignorant of the location of countries such as Poland or Armenia; cities such as Buenos Aires, Seattle, New Orleans; rivers such as the Thames, the Columbia, or the Volga. In each region, the boundaries of the states or parts included, the rivers, lakes, cities, and so forth, should be located, but they must be associated in the child's mind with some geographic factor that makes him see why he should be able to locate them. See *Journal of Geography*, December, 1916, "A Recommended List of Essentials in Place Geography."

5. **Pictures.**—The pictures with which the text is so fully illustrated have been selected with the greatest care. In every instance they possess a rich instructional value. They should not be passed by with a glance and a remark, but should be made the subject of close observation. The pupils should be encouraged to find the whole story in each picture. Often a process or a condition may be described from a picture and then be verified by reference to the text. The questions which are printed beneath most of the pictures have been worked out with care, and will be found of real help in attempting to interpret the picture or open up a new line of thought. Pupils may be permitted

to prepare questions on the pictures and present them to the class to be answered. An occasional contest in which one section of the class tries to surpass the other in the number of things of interest which are to be seen in a picture will be found to be of value.

6. Diagrams.—Diagrams such as those given in Figs. 29, 89, 112 and 147, should be studied as a part of the text. Pupils should be taught how to read such diagrams and to interpret their meaning. They should be encouraged to reproduce similar diagrams in their notebooks, and on the blackboards. Opportunity should be given to invent other ways of representing graphically the story told by the diagrams in the book. When pupils are able to do so, they should be encouraged to present to the class diagrams of their own making which will illustrate some facts discovered in the text.

7. Questions.—The teacher will find in the text at the close of the treatment of each Region a list of Questions. These questions have been prepared with the greatest care. They are not mere questions on the text but, rather, questions requiring interpretation of the text. In some instances they take the form of instructions as to certain things to be done, such as the preparing of maps or the filling in of outlines. In every case they represent real teaching value. It is suggested that the teacher in the planning of her lessons include a careful reading of these questions, as they are intended to be an integral part of the text itself and essential to a complete understanding of the text. The use of these questions will result not only in a saving of time for the teacher, but also in a clearer understanding and interpretation of the meaning of the text. Some type questions are introduced early, and the wise teacher will make continued use of them as opportunity comes.

8. Appendix.—As a part of the method of teaching children how to use a Geography, the teacher should see to it that the statistics which are presented in the Appendix are referred to frequently. The use of these figures is not indicated to imply that statistics are necessarily of prime value to the child studying Geography. It is rather that the child become acquainted with such tables, and learn how to get information from them when he needs it.

9. Index.—It would be well for the teacher to spend one lesson period on "How to use the Index." Test ability to use it by asking what "alfalfa, 66," means; "Argentina, 397"; "Algeria (286, P2) (351, O2)." Have the pupils check up in order to see if their decision is right. After they are sufficiently familiar with the book, a lesson could be conducted on a product or a country by the use of the index: *e. g.*, "What can I learn about the regions of Brazil from the Index?" On discovery that there are five regions—Amazon Valley, S. E. Trade Wind,

Grassland, Subtropical Agricultural, East Temperate Agricultural—the class could be divided into five groups, each with a chairman, to investigate and report on one of these regions.

A similar lesson might be conducted on a product such as petroleum. This gives ample opportunity for motivating lessons.

10. Results.—During all of the instruction in Geography the teacher should keep constantly in mind the **Aims of Modern Geography Instruction**. In the accomplishment of these larger aims, certain specific realizations and abilities should be developed. When the child completes his study of Regional Geography he should realize:

1. That every region has some physical factors that control the activities of the group of people living in it.

2. That these factors influence not only the present, but that the future development of the region is dependent on them.

3. That human agencies play an important part in developing the resources of a region and conquering the natural obstacles to progress.

4. That the pupil himself is dependent on other regions for at least one of the six needs of all mankind.

5. That he must be prepared when the time arrives to make his contribution, and that it must be the best that he can give.

He should be able

1. To read and interpret simple maps, graphs, charts and other tools of geographic knowledge, and gain information from them.

2. To conduct a simple investigation and arrive at a satisfactory conclusion.

3. To use a Geography book, including the index and statistical tables.

4. To understand and interpret geographic terms.

To achieve the greatest measure of success in the teaching of regional geography, certain conditions are necessary. First, the teacher must have a real interest in the problems which are being studied. A careful study of the text and a wise use of the references suggested in this manual will be found to be one of the best ways to develop such interest. Second, she should plan sufficiently in advance of each lesson to have such supplementary material prepared and assignments made as will insure the success of the lesson. Third, she should so handle the teaching as to encourage the pupils to do most of the work for themselves. Fourth, she must strive to tie up each lesson with the real life of her pupils. Fifth, she should so set the situation as to bring about an interest on the part of the pupils in related topics. For instance, a pupil may not be interested in Geography as such but may be very much interested in reading stories of travel and adventure. If the teacher sees to it that such

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a pupil has access to these stories and then is wise enough to let this pupil make his contribution to the general fund of information in the light of the stories he is reading, she will be well on the way to success.

"The mission of Geography is to give the broadest possible knowledge of peoples and countries, their cities, industries, achievements, and all that goes to make them strong or weak, the leaders or followers among the nations of the earth, and the principal reasons why these things are as they are."—Whitbeck, "Ideals and Aims in Elementary Geography," *Journal of Geography*, 1915, Vol. 14.

CHAPTER IV

LESSON PLANS AND SUGGESTIONS FOR TEACHING

The lesson plans which follow are intended as suggestions how to use the maps, graphs, pictures, text, etc., included in Human Geography, Book II. The course of study, the needs of the class, the speed of the group, the region in which the children live, will determine where the emphasis is to be placed. Teachers in the South will naturally spend more time on the Cotton Belt, teachers in the West on the Western Mountains and Plateaus, teachers in Pennsylvania on the North Atlantic Coast Plain, teachers in Illinois on the Central Farming Region. But the essential feature of all teaching, whether in the North, South, East, or West, is that there should be **definiteness of aim** not only in the particular lesson of the day or the work of the term but in the study of **Geography as a whole**.

As teachers of all degrees of experience and skill will be making use of these helps, they have been planned so far as possible to meet the needs of all types, from the beginning teacher who is facing her class for the first time to the special teacher of Geography. In order to meet all these requirements, certain lessons have been planned entirely on the textbook method, in which the directions are simple and explicit. From this type of lesson, the degree of complexity runs up to those lessons which are planned along the line of the most advanced modern method.

The following lessons have been planned primarily for the teacher who may feel that she prefers beginning her work along comparatively simple lines, or until she becomes sufficiently familiar with the teaching of Regional Human Geography to attempt the more difficult methods.

1. The Six Needs of Mankind and Our New World, Manual, p. 4.

2. Studying the World by Regions, Manual, p. 5.

3-A. Florida Peninsula,* Manual, p. 5.

4-A. Cotton Belt,* Manual, p. 7.

5-A. The Central Farming Region,* Manual, p. 11.

6. Pacific Mountains and North Pacific Coast, Manual, p. 13.

10. Appalachian Region, Manual, p. 18.

13. Trade of North America, Manual, p. 20.

It is strongly recommended that every teacher read over carefully the plans which are suggested for each region before teaching the region. Even if the method suggested is not used, the teacher will probably find many helpful suggestions which she will be able to incorporate in her own plans.

It has been thought desirable to submit plans for only a limited number of the regions treated in the text. The regions so treated will be seen to be typical, and the methods suggested applicable to many other similar regions. After a region has been thoroughly taught it will serve as a type to which reference may be made when similar regions in other parts of the world are being considered. To aid the teacher a "Key to the Economic Regions of the World" has been prepared. See page 27 of the Manual.

1. The Six Needs of Mankind and Our New World

(Pages 1-11)

These first lessons (Secs. 1-15) must be regarded simply as introductory to the book and are not to be taught as formal geography lessons. They are written for the purpose of drawing a contrast. Secs. 1-7 picture the simple life, Secs. 8-15 the complex life of to-day which Geography must explain.

By means of silent reading, stimulating questions on the part of the teacher, and class discussion, the children should be led to realize the following facts: (1) All people have similar wants. (2) Recently there has been a great change in the manner of supplying these wants. (3) This change, through trade, has made each neighborhood produce fewer kinds of things but much more of a few things. These are sold to pay for many things that come from distant parts of the world. Thus, increasing trade brings about a kind of division of labor among different parts of the earth, each one of which produces the things that best fit its trade opportunity. This is called a regional division of labor.

To develop the idea of the complex life of to-day, use Questions 5 and 6, p. 4, to show the contrast with the simple life of the Eskimo, the black man, the Indian of to-day, and of our early settlers. Use

* Two different types of lesson plans have been prepared for the first three regions treated in the text, Florida Peninsula, the Cotton Belt, and the Central Farming Region. In each case, the lesson plans headed 3-A, Florida Peninsula, 4-A, Cotton Belt, and 5-A, Central Farming Region, represent the simpler type of lesson plan, while 3-B, 4-B, and 5-B represent the more advanced type.

Question 8 to show our dependence on transportation. The story of Robinson Crusoe might be of use in connection with Question 8.

These two lessons* have a genuinely social character and make a "significant contribution to the child's awareness of what it means to live together in organized society, appreciation of how we do live together and an understanding of the conditions precedent of living together well." See *Teachers' College Record*, March, 1922. Social Studies in Development, Albert Shiels.

These two lessons may be correlated with history by the use of Questions 4 to 12 on p. 11, and Figs. 7, 8, 11, and 12.

2. Studying the World by Regions

(Pages 11-14)

The third lesson, while covering but two sections of the text (15 and 16), is important because it is practically the approach or introductory lesson to all the regions which are to follow.

Have the pupils read Sec. 15. Raise question, "Why does the book say that all people are neighbors to one another?" Refer to Sec. 14. Have pupils turn to map of United States, pp. 198, 199, and find the state in which they live. "What are the boundaries of this state?" Notice that some states have the ocean as a boundary; others a river or a lake; still others have what seems to be just a line drawn on the map. Have pupils see that where there is no natural boundary it would be possible to pass over from one state into another and never know we had crossed the boundary. Develop the idea of natural boundaries. Examine a physical and political map such as that on pp. 26 and 27. Study this map with reference to the height of land. Have the children indicate the states that are entirely in the lowest level; partly in the highest level; and so forth. Develop the idea of surface as a factor in determining a natural region. Read carefully the last paragraph of Sec. 15. Lead up to the questions: "How are the boundaries of natural regions determined?" and "What do we mean by a natural region?"

Next read Sec. 16. Have pupils discover the answer to the question, "What is it that decides how men make their living?"

Develop on the blackboard some such outline as follows:

Boundaries of natural regions are determined by
Climate.
Soil.
Surface.

*The term "lesson" as used in this Manual is not synonymous with "recitation or teaching period." It refers to a topic, or a unit of study. Generally more than one recitation, teaching period or study period will be needed to complete the work outlined.

Natural regions determine how men make their living:

In a natural region	{ People do the same things. People sell the same things. People buy the same things.
---------------------	---

Have pupils examine Fig. 14. Locate the region in which they are living. Explain how to use the key at the bottom of the map. Have pupils find the name of the region in which they live. Practice naming the natural regions in which several states and cities are located.

Have pupils prepare in their notebooks a chart as indicated in Question 5 on p. 14. Have them fill it out for the region in which they live.

3-A. Florida Peninsula'

(Pages 16-22)

As this lesson is the first in which the study of a definite natural geographical region is to be made, it would probably be well to use it largely as a means of illustrating what is meant by a natural region, and to show how such a region may be studied. This will enable us to determine the Aim of our lesson and suggest the method of Approach.

The Aim of the lesson will be to have the pupils understand that the Peninsula of Florida constitutes a *natural geographic region*. In the accomplishment of this *major Aim* certain other objectives should be in the mind of the teacher. For example, to have the pupils understand something of the conditions which make for the life of the people in his region; to impress the pupils with the importance of this region to the rest of the country; to acquaint the pupils with certain geographic terms; to develop certain habits of thought and study which will assist in the understanding of other natural regions.

As all these lessons on accomplishing aims would require many more plans than we have space for, they will be treated as part of the fundamental work in all subsequent lessons.

The method of treatment will depend largely upon the amount of time the teacher is able to give to the group working on this subject. Even where the teacher is responsible for but one class it is highly desirable that the work be so planned as to require that the pupils do most of the work unassisted. The interesting narrative of the text, together with the pictures, diagrams, maps, and questions, make the study of "Human Geography" exceedingly easy.

The Approach to the lesson might be made through a discussion of some of the things which Florida sends to us. Mention might be made of oranges, grapefruit, and winter vegetables. The question should then be raised, "Do we produce these things in our part of the country?" Reference might be made to the raising of vegetables

in hothouses during the colder winter of the North. Have pupils realize that in Florida such vegetables are grown out of doors in the winter months. Develop the idea that this is due to certain conditions which exist there. Examine Fig. 14 and see that the Florida Peninsula is indicated as a natural region. Raise the question, "What are the conditions which make us consider the Florida Peninsula as a natural region?"

The answer to the last question will make mention of the three conditions—climate, surface, soil—as determining the boundaries of a natural region.

Have Sec. 19 read. Examine Figs. 20, 22, 23, and discuss the kind of climate necessary to produce such vegetation. Introduce the word "tropical." Read Sec. 20. Have Questions 3 and 8, p. 22, answered.

Have Secs. 18, 21, 22, 24 read and discussed. What does Fig. 21 tell us about the height of the land? Describe the surface as shown in Figs. 23 and 25. Have pupils prepare a brief statement of the surface and soil of the Florida Peninsula.

At the conclusion of the lesson have a summary statement prepared as to the way in which these three factors determine the boundary of this natural region.

The second lesson on this region might be spent profitably in considering how the climate, surface, and soil of the region have determined the products of the region and the industries of its people.

Ask the question, "Why is not cotton raised in the Florida Peninsula?" See Sec. 20. "In what industries are the people of Florida engaged?" See Secs. 18, 23, 25, 26, 27, 28, 29, 30. Have each of these sections, which have not been read previously, read over carefully. See that the questions included in the text are answered. Examine the several figures illustrating the industries of the region. The questions on p. 22 should be studied with care and answered. It will probably not be possible to have all the pupils attempt to answer all the questions there listed. It is suggested that they be assigned to different members of the class, and that these pupils be required to report to the class on the questions so assigned.

It is not intended that all the material suggested in the paragraph above be covered in one lesson. The number of lessons used will depend upon the amount of time available.

Results.—The teacher should see to it that the facts which have been brought out in the answering of the several questions and in other class discussion are seen in their relation to the Aim of the lesson. It should not be expected that all the facts brought out in the lessons be retained nor that verbal locations and descriptions be given. *It will be sufficient if the pupils realize that because of climate, soil, and surface conditions the people in this section*

of our country do the same things, sell the same things, buy the same things. In other words that the natural conditions of the region determine the life of the people, and that such a section, regardless of its size or the states or countries which it contains, constitutes a natural geographic region.

New geographic terms will have been acquired which will be reviewed from time to time as they arise in connection with other regions. Locations will be fixed by the repetition which will come when the people of one region are seen selling to and buying from the people of another region.

From the beginning the pupils should be expected to make use of maps, diagrams, charts. The habit of looking up references in other sections of the book should be encouraged.

At the conclusion of the study of the region the following facts should be definitely known by the pupils:

1. The Florida Peninsula constitutes a definite natural region because its climate, surface, and soil, are such as to make its people largely dependent upon products peculiar to that region.

2. The natural conditions of this region are:

Climate—warm throughout the year, with much rain.

Surface—low and very level.

Soil—swampy lands which have been drained; rich sandy lands, good for vegetables and water-melons.

Natural resources—fish, lumber, phosphate rock.

3. The industries of the people are:

Farming—winter vegetables.

Fruit growing—oranges and grapefruit.

Manufacturing—cigars.

Lumbering—naval stores.

Mining—digging phosphate rock for fertilisers.

Tourist industry.

3-B. Florida Peninsula

(Pages 16–22)

Study of this region makes a good approach to regional geography, as it is a simple type.

I. Dominant Factors:

1. Climate: subtropical—a region of warm winters with little possibility of frost; abundant rainfall.
 - (1) Latitude.
 - (2) The effect of Atlantic Ocean and Gulf of Mexico.
 - (3) Gulf Stream.
2. Surface: flat; swamps, everglades, few rivers, limestone sinks.
3. Soil: sandy.
4. Nearness to markets: directly connected by rail and water with densely populated cities of the North.

II. Resultant Activities:

1. Agriculture. Chief products: winter vegetables, oranges, grapefruit.
2. Tourist industry: Tampa
Miami
Palm Beach } Winter playgrounds.
3. Lumbering. Chief products: lumber, rosin, turpentine.
4. Manufacturing: cigars.
5. Mining: phosphate rock.

LESSON PLAN*

I. Approach:

Pictures similar to Figs. 23 to 25, or railroad advertisements to focus the attention of the class on the fact that Florida has a warm climate; or read Secs. 17 and 18.

(As this is the first region to be studied, it will be necessary to interpret the legend and the meaning of letters and figures on margin, Fig. 21.)

1. Map Study:

Study Fig. 21 to locate the region. Mark boundaries on wall maps or on individual map. Emphasize as boundaries the Cotton Belt, Atlantic Ocean, Gulf of Mexico. Point out the Bahama Islands, Florida Keys (explain keys), the Everglades.

2. Physical Features:**1. Climate:**

Use Figs. 14, 21 and 26, to emphasize latitude. Study Secs. 19 and 20 to develop the fact that Florida is warmer in winter.

Use Question 3.

Get children to give such key phrases or words as:

Key West is the southernmost town in the United States where frost has never been recorded.

Far south; warm in winter; green in January; palm trees; alligators; winter vegetables; oranges.

Use Fig. 327 and Sec. 20 to show the effect of the Gulf Stream.

Answer Question 8.

Rainfall:

Use Fig. 158 to show that the rainfall is abundant for agriculture, and p. 20 to show why this region is not in the Cotton Belt.

Have class explain the apparent contradiction of "large rainfall, few rivers" by study of Fig. 19 and Secs. 22 and 24.

Use Questions 5, 6, 7, and 22.

2. Surface:

Use Fig. 26 to develop idea of height. Read the first sentence of Sec. 21.

Use Secs. 21 and 22, Figs. 19 and 20, to show the effect of this flatness.

Children list in notebooks such descriptive phrases or words as:

Flattest part of the United States; swamps; everglades; few rivers; limestone sinks.

Use Sec. 31 to show what man might do to overcome these disadvantages.

Answer Questions 5 and 6.

3. Soil:

Develop the idea that the soil is good for winter vegetables, fruits such as watermelons, but not for cotton, corn or grass. Why not? Develop by use of Sec. 24. When swamps are drained, will this make good or poor soil?

4. Nearness to markets:

Use Fig. 309 to show advantage of Florida in being near regions with cold winters.

Trace some of the railroad lines from Key West, Tampa, St. Augustine. What does "Seaboard Air Line" on freight cars mean?

II. Resultant Activities:**1. Agriculture:**

Bring out dependence of cities of north on this region for winter vegetables, oranges and grapefruit, by study of Figs. 23, 24, 25.

Fig. 24 is a typical product map. Teach them to interpret its lesson. Study Secs. 25 and 26 to show effect of frost.

*The term lesson does not mean merely a lesson period.

See S. B. & T.* and C. & I. for further information. Emphasize climate as chief control, and this type of agriculture most favorable for region.

2. Winter Resort:

Use railroad folders, advertisements, etc., to emphasize Tampa, Miami, Palm Beach, as winter playgrounds.

This is another illustration of how the climate of a region may be a source of wealth.

3. Lumbering:

Fig. 314 shows why much of the land is still in forests.

Figs. 20 and 22 and Sec. 28 show kinds of trees.

Study Fig. 21 to bring out dependence of Europe, West Indies, and South America on this region for lumber and rosin.

Place lumber ports in map.

4. Manufacturing:

Sec. 29. Put Key West on map. Find its latitude; compare with other cities of the U. S.

Point out the advantage of Key West being near Cuba.

See how many times you read Key West on cigar boxes.

5. Mining:

What is phosphate rock? Of what use is it to us? Sec. 30 and Fig. 21 will tell you what countries need it.

Place St. Marks and Tampa on map.

III. How Human Agencies have Overcome Natural Disadvantages:**1. Climate:**

Government sends out frost warnings 24 hours in advance to protect orange growers.

Bulletins are issued showing them how to fight frost.

Railroads use refrigerator cars and fast trains to bring perishable goods to the north in good condition.

IV. Application:

Answer Question 1.

Use Question 6 and p. 31 to show the possibilities of this region.

What do the names Florida and St. Augustine suggest about the early history of this region?

What effect has it had on the type of architecture of the hotels?

Note.—Use this region in comparison with the valleys of Southern and Central California, as they are sub-tropical, but emphasize differences due to location, population and possibility of development.

In the study of the Mediterranean Region of Europe, show that Miami, Tampa and Palm Beach are counterparts of the Riviera and similar winter resorts. Whenever climate and scenery are factors in developing a region and hence a source of income to the people, stress them. Children are too apt to look upon agriculture, manufacturing, lumbering, fishing and trading as the only occupations of economic importance.

Find out what part of China resembles this region in climate.

4-A. Cotton Belt

(Pages 22-36)

An introduction to the study of the Cotton Belt might be made by assigning for home study Sec. 32. The assignment might be made in this manner:

*S. B. & T. stands for Salisbury, Barrows and Towers, Geography; C. & I. for J. Russell Smith, Commerce and Industry. (See Bibliography.) These books will be referred to hereafter by the above abbreviations.

"Read carefully paragraph 32 and write the answer to the following questions:

"Why is cotton considered the best of all crops?

"Which states are entirely in the Cotton Belt? Which are partly in it?" (Fig. 21.)

The Aim of the lessons which follow will be a continuation of those suggested for the Florida Peninsula. Increasing emphasis should be placed on the responsibility of the pupil to answer questions which may arise, and to develop his power of study.

An Approach to this series of lessons might be made by having the pupils make a list of all the articles which they use or which they can think of which are made of cotton. Raise the question: "Why is it that if this commodity is so widely used and so valuable, it is not raised all over our country?"

The answer to this question will bring up the already discovered fact that the production of this article is determined by climate, soil, and surface. This might then be worked out in the manner suggested in the lesson on the Florida Peninsula, or the teacher and class together might read the sections of the text covering this (Secs. 33, 36, 37, 38).

Compare the physical factors and natural resources of the Cotton Belt with those of the Florida Peninsula—elevation, location, climate, growing season, soil, natural resources. Have the pupils see that the region of the Cotton Belt has a much greater wealth of natural resources. Emphasize the idea that people raise those things for which their region is best adapted, and for which there is the greatest demand.

As the text is being read and discussed, the several maps, pictures, and diagrams in the text should be examined. Pictures in other parts of the book showing mountainous regions might be examined and the question raised as to why these sections could not produce cotton. Use should be made of Questions 2 and 5, p. 36.

The second lesson of this series might very profitably be spent on the subject of Cotton Raising. The material for this lesson is to be found in Secs. 34, 35 and 41. A beginning for this lesson may be found in Question 7, p. 36. The teacher and class can work out together the several parts. This may then be followed by having Secs. 34, 35 and 41 read silently. Figs. 37, 34 and 35 should then be examined closely and the pupils encouraged to read into these pictures the information which they have acquired from reading the text. If teacher or pupils have postcards which have been sent to them from the Cotton Belt, or pictures illustrative of cotton raising, or samples of cotton cloth, cotton bolls, etc., they should bring them to class. Splendid collections of pictures and samples of materials may often be obtained by having pupils in the class correspond

with pupils in a school in the region being studied, and arranging for an exchange.

It is suggested that the writing of the letter describing the journey be made a part of the next period for written English.

The keeping of a geography notebook into which pictures, news items, etc., are pasted will be found to add considerably to the interest in the subject.

Questions 6, 10, 12, and 15, p. 36, should be assigned for study among the several members of the class.

Three lessons could very properly be spent in a study of the remaining sections dealing with the Cotton Belt. Where this is possible it is suggested that they be divided as follows: one on other vegetable productions, covering Secs. 39, 40, 42, 43 (in part), 50 and 51; the second on cattle raising and forests, Secs. 43 (in part), 44, 45 and 46; the third on manufacturing and cities, Secs. 47, 48, 49, which should be especially well developed in the Cotton Belt itself.

Questions 1, 4, 5, 8, 9, 11, p. 36, should be assigned for study and report among the several members of the class.

The Approach should be made wherever possible through a consideration of those things which the pupils receive from this region. Have the pupils realize our dependence upon others for many of the necessities of life.

Most of the material in the text is written in such an interesting manner that it may be read easily and with understanding by the pupils without explanation by the teacher. Encourage the pupils to search in the text for answers to questions which may arise in class or in their own minds. The interpretation of diagrams and maps should be made with the teacher assisting. Strive to develop a spirit of self-reliance by having the pupils discover for themselves wherever possible the meaning of symbols, diagrams, and so forth. See to it that each picture in the book is carefully examined and that the story which it is meant to convey is understood. Continue the use of the geography notebook begun in the previous lessons. The development of a bulletin board geography will be found helpful. Pupils securing pictures and so forth, which would be of interest to the entire class, may be permitted to display their findings on this bulletin board before pasting them in their geography notebooks.

4-B. Cotton Belt

(Pages 22-36)

A region with a long, moist summer, and great resources for agriculture, forestry and manufacturing.

NOTE.—This region is presented in much detail that it may serve the following purposes:

1. As a type for other regions agriculturally important, such as the Great Wheat Region of the United States, the Rice Region of Asia, the Sugar Region of the West Indies, etc. The great point to stress in studying each region is to discover what factors make it a region, which are the controlling factors, and what other regions are dependent on it.

2. It illustrates the evolution of a region from a purely agricultural to a manufacturing.

3. The child will find other cotton regions in the world; viz., India, the Mediterranean Region, the Subtropical Agricultural Region of South America, Australia, and the facts studied here will enable him to interpret those regions.

4. It will assist him in solving problems that affect the future of the cotton regions of the world, as: Why India is increasing her cotton area? Why England is planting American cotton seed in Africa?

5. It will also focus his attention on the fact that the people of the United Kingdom, France, Germany, and the new Japan are dependent on this region for raw material that must be made into cloth that can be used to buy food. It is the geographic translation of "This is the House that Jack Built."

I. Dominant Factors in the Region:

1. Physical:

1. Climate: 200 frost-free days:

Warm, moist summer for growing.

Dry sunshiny weather for ripening.

Rainfall at least 40 inches: seasonal; thunder-shower type; rain coming every few days. (Cotton can be grown in irrigated lands, as in Salt River Valley of Arizona.)

(See Finch & Baker's Geography of World's Agriculture for more detailed account. See Bibliography.)

2. Soil: variety:

Limestone—rich, black (Texas, Central Ala.). Silt—delta of Mississippi best for cotton.

Sandy—not suited to cotton; better for peas, peanuts, sweet potatoes, watermelons, early vegetables, pine forests.

Clay loams—in many parts.

3. Surface:

Flat plains—easy to cultivate: no mountains; small hilly area.

4. Area: Large.

Count states, and figure total area from Appendix.

5. Transportation possibilities:

Waterways afford cheap transportation.

Ocean: borders on Atlantic and Gulf of Mexico.

Rivers: many short navigable rivers.

Railroads: developing rapidly.

Roads: smooth, level ground gives this region a decided advantage over hilly and mountainous regions.

2. Human:

1. Labor:

Large number of negroes.

South is encouraging immigration.

2. Activities of Government:

National, state, municipal, shown in the development of this region by:

(1) Increased use of agricultural machinery and of scientific farming taught in the Agricultural College.

(2) Development of manufacturing.

(3) Building levees.

(4) Conquest of boll weevil.

(5) Eradication of cattle tick.

(6) Making this a healthier region for man by eradication of mosquito.

II. Resultant Activities:

1. Agriculture:

Most important cotton region of world.

Mills of North and of Europe dependent on this region for bulk of raw cotton.

Furnishes

1. Valuable food products for man: sugar, rice, corn, early vegetables, peaches, pecans, peanuts, meat, and dairy products.

2. Soy beans, cowpeas, vetch, clover.

3. Fertilizer—other food regions.

2. Lumbering:

Louisiana, second state (1920) in value of lumber output, furnishes pine, oak, cypress; other states.

3. Manufacturing:

Although raw materials are still the most important contribution of this region to other parts of the United States and to Europe, manufacturing is developing rapidly, the most important manufactures being:—

1. Cotton cloth.

2. Iron and steel. (See also (2) below.)

3. By-products of cotton seed.

4. Lumber.

4. Mining:

1. One of the most important petroleum regions of the United States. Has the world's greatest sulphur mines.

2. Iron ore, together with coal and limestone making the Birmingham iron and steel district.

LESSON PLAN

FIRST LESSON

I. Approach:

1. Use Figs. 28 and 29 to develop the fact that the United States in 1919-20 produced about three-fifths of world's cotton.

NOTE.—These figures form the basis for practical problems in fractions and percentage.

2. Place problem: "Why does the United States produce about 60 per cent of the world's cotton supply?" in your notebook. Children suggest factors that might control this production. Make list. Postpone decision until investigation is made. Use Index for map reference. Read Sec. 32.

II. Map Study:

1. To locate Belt, name political divisions. Discuss factors that determine boundaries. (Be sure that class understands that these boundaries simply mark the region where cotton is the chief crop—that this line is not to be regarded as a fence.)

2. To study surface—Fig. 33.

3. To study rivers—Figs. 33, 80, and 21.

4. To study coastline—Fig. 33. Text adds facts that map cannot show.

NOTE.—Children should mark the boundaries of every region; mark names of states (insist on correct abbreviations of states), important rivers, cities, in their outline maps. These should be pasted in notebook. Facts should be added as developed. This should be done with every region.

SECOND LESSON

I. Aim:

To focus attention on climate as the controlling factor of the human activities.

II. Approach:

1. Restate the problem.

2. What facts may we learn about climate that help to solve the problem?

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Climate:

1. Figs. 27 and 14 to develop latitude as chief reason for frostless days.
2. Fig. 30 and text to develop reason for western boundary. Use all references to emphasize the reason why western Texas does not raise cotton.
3. Study Fig. 31 to develop that the seasonal distribution of rain is a more important factor than amount of rain.

III. Application:

1. Answer Question 2.
2. Put facts about climate in notebook.

THIRD LESSON

NOTE.—Each lesson is intended to help develop the general aim.

I. Aim:

To develop the effect of the other factors that are not so important as climate in the development of this region.

1. Surface:

Use Secs. 37, 38, Fig. 36, and facts learned in map study to develop advantages and disadvantages of this region for farming.

2. Soils:

1. Study of soil, Sec. 36.
2. What three kinds of soil are discussed?
3. Which is the best? Mark areas in map.
4. Which poorest? Its use? Study Sec. 46.

3. Area:

Calculate from Fig. 27 about what part of the United States lies in the Cotton Belt.

4. Transportation possibilities:

Use Figs. 21, 33, and Sec. 48, to develop facts outlined under transportation.

Develop the value of many rivers for cheap transportation.

Look at railroad map, and suggest reason why railroads have been developed to a greater extent in the northeast and central regions. What have states done to develop good roads?

5. Human Factors:

1. Fig. 35, stereographs, etc., to show negroes at work.
2. Government activities.

II. Application:

Answer problem, using Question 10.

FOURTH LESSON

I. Aim:

To understand term: "King Cotton."

II. Approach:

1. Study Figs. 34 and 35, and Sec. 35, to explain ginning and baling.
2. Look into history for the name of the man and date of invention of cotton gin.
3. What were the results of his invention?
4. Study Figs. 21 and 9 to tell where this cotton goes.
5. Does the South use any? What advantage has the South? See Sec. 47.
6. Look at Fig. 314 and see if it tells you a disadvantage.
7. Put in your map the cities named, after you have carefully studied their location. Note the factors that made these cities manufacturing centers.
8. Columbia, S. C., has the largest cotton mill in the world under one roof.
9. It is the first cotton mill in the world to be run by electricity brought from a distance.

By-products:

1. Write to the Chamber of Commerce in one of the leading cities of the South for a specimen of cotton in the boll.
2. Separate a seed from the cotton, press it on paper, look at mark made.
3. Find out from Sec. 47, and chart in Slosson's Creative Chemistry, Chapter XI, "Solidified Sunshine," all the uses made of cottonseed. Put in notebook.

III. Further Study:

1. Study Fig. 38, and Sec. 41, to bring out destruction by weevil. (If possible in Science Lesson, study history of weevil.)
2. Study Sec. 42, Figs. 37 and 42, to explain diversified farming.
3. Show the advantages of the South over the North for cattle raising. What is the cattle tick?
4. Sec. 45 and Fig. 39 will tell how science adds to the health and wealth of a region. Read Sec. 50.

IV. Summary:

1. Suggest question: "Has the boll weevil proved more of a blessing than a curse to the South?"
2. Reference: Yearbook of the Department of Agriculture, 1917, "How the dairy cow brought prosperity in the wake of the boll weevil."

FIFTH LESSON

I. Lumbering:

1. Use Index under forest to locate the great forest regions of the United States.
2. What effect has the growing of cotton had upon the forest regions of the United States? What two trees are of most value for lumber?
3. What advantage has the South over the East and West for transportation of lumber?
4. Find lumber ports on Fig. 21. Print them in your outline map. For uses of cypress, write Southern Cypress Co., New Orleans, La.

SIXTH LESSON

NOTE.—Teachers in the South will probably wish to give more time and emphasis to this and the next lesson.

I. Aim:

To emphasize other contributions this region makes to the food supply for man and beast.

1. Sugar: Sec. 39—Although sugar cane grows here, why do we not emphasize it? Print in product map.
2. Rice: Use Figs. 48 and 50, and Sec. 51, to show Effect of machinery on rice production. That southeast Asia, not the U. S., is the great rice region of the world. That California comes second to Louisiana in the United States.

3. Nuts:

1. Pecan: Explain grafting, a very old industry practiced in Persia 2400 years ago. Use Fig. 51 and Sec. 51 to show what man can do with wild plants to produce food. Investigate a food chart and find the value of nuts as food. Have you ever tasted New Orleans pralines?
2. Peanuts: Find text and figure references.

4. Minerals:

1. Petroleum: What is meant by the words "That Good Gulf Gasoline"? Add this to your list.
2. Other Minerals: What three other minerals add to the wealth of this region? What manufacturing district have they produced?

5. Fruit:

Georgia Peaches.
Sec. 40. How does climate affect the supply of peaches for northern cities?

SEVENTH LESSON**I. Cities:**

New Orleans: Study Figs. 47 and 21 to emphasize the location of the city as a factor in its commercial importance. Emphasize its connection by the Mississippi River with the great food regions to the north.

Figs. 35, 48, 49 suggest why it is the distributing center for cotton, sugar and rice, and its importance as an importer of coffee, sisal, fruit and crude oil. Find its rank among U. S. seaports.

Tell why New Orleans needs great grain elevators.

Galveston: The greatest cotton exporting port of the United States. Why?

Use Figs. 43 and 21.

Show the effect of the Panama Canal on the development of New Orleans and Galveston.

Birmingham: "The Pittsburgh of the South"—explain. Place in your map, New Orleans, Galveston, Birmingham, Mobile.

Why does the bulk of the trade of this region go to the Gulf?

Locate Savannah, Charleston and Wilmington.

From Fig. 21 name their exports and imports.

Summary of all Lessons

1. Excellent suggestions are to be found in the questions on p. 36.

2. Under Sec. 47, a Muscle Shoals problem could be developed.

Muscle Shoals is a fifty-mile stretch of river and rapids between Florence and Decatur, Alabama, so named because of the great number of shellfish called mussels, but misspelled by an early explorer. It will make 130,000 horsepower at lowest water, and over 500,000 horsepower for a month or two at a time. Use for development of future.

3. Explain the phrase "The New South."

References: Free Bulletins of U. S. Department of Agriculture.

1. Bulletin on Agricultural Extension Work in South.

2. Bulletin on Boys and Girls Club Work.

5-A. Central Farming Region**Part I. Prairie Corn and Small Grain Belt**

(Pages 36-50)

For the teacher with a meager amount of supplementary material.

FIRST LESSON**I. Approach:**

Study Figs. 2, 5 and 55, to develop the type of farming in Indiana, Iowa and Illinois.

Locate the states on Fig. 54 and Figs. 21 and 52. Use Figs. 68 and 69 to develop problems:

1. Why is this the greatest corn-producing region of the United States?

2. Why is this the greatest corn-producing region of the world?

II. Map Study: Fig. 21:

To determine location of this region.

1. Mark on your outline map the states included.

2. Study Fig. 158 and Question 3, p. 50.

3. What river valley marks the southeast boundary?

4. What great lakes border on this region?

III. Physical Features:**1. Climate:**

1. Emphasize division between eastern and western sections of states.

2. Use rainfall map of the United States; refer to "dry line" as western boundary of Cotton Belt also. Why does it mark the limit of growth of both corn and cotton?

3. Read description of climate, Sec. 58, to develop facts of climate as shown in outline.

4. Compare with climate of Cotton Belt.

2. Soil:

1. What words describe soil? Compare with deep clay.

2. Why are roads poor?

3. What has improved all roads in the United States?

3. Surface:

1. Fig. 21 to review idea of plain.

2. Fig. 53 to recall distribution of glacier.

3. Read simple explanation of glacier in Sec. 52.

4. Find expressions in text that describe the surface of this region.

4. Rivers:

1. Figs. 54 and 80 to locate navigable rivers.

2. Compare with Cotton Belt to show advantage of Cotton Belt for trade because of its maritime location.

3. Discuss development of railroads in this region with that of South.

4. Trace three routes by which products of this region get to sea.

5. Bring out nearness to Great Lakes as an advantage of this region.

5. Area:

(In relation to population.) Use tables on p. 270 to compare with central Corn Belts.

IV. Application:

Use Question 1, p. 50, to summarize.

Read Sec. 74. Make a calendar for farmer.

If study of New England precedes the study of this region in your Course of Study, here is an excellent opportunity to have children solve these problems:

1. Why New England developed manufacturing instead of agriculture when both regions were in the area covered by the glacier?

2. Why has New England developed the truck farming type of agriculture and this region the grain type?

SECOND AND THIRD LESSONS

Restate problem.

I. Aim:

To lead children to see what man has done to develop and increase the natural resources of a region.

II. Approach:

Give briefly the dominant physical factors as developed in the first lesson.

III. Presentation:

1. Show a picture of a forest. Compare with Fig. 55 to show what man has done in this region. How? Fig. 17.

2. Use Figs. 73 and 74 and pictures of farm machinery, especially tractor, to emphasize the part agricultural machinery has played.

What is meant by the phrase "abandoned farms"?

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3. Study Fig. 71 to develop
 - (1) 75% of world's hogs raised in U. S.
 - (2) Iowa the leading hog state. Why?
 - (3) Iowa the leading corn state. Why?
4. Use Questions 2 and 8 with Sec. 75; Figs. 75, 76, 78, and 79.
5. Study location of, and place in map: Chicago, Cincinnati, St. Louis, Kansas City, Omaha. Emphasize their location in Corn Belt and their facilities for transportation.
6. Study Fig. 314. Compare with northeastern United States.

Question: Why is St. Louis the largest city in the region?

Question: Compare with New Orleans, to develop the latter's advantage for trade.
7. Use silo in Fig. 2 and Sec. 77 to show what man does to push the Corn Belt westward.
8. Connect high price of land as shown in Sec. 78 with increasing needs of world.
 - (1) Use p. 11 of Appendix to compare the population of Massachusetts and Iowa.
 - (2) Use Fig. 210 to show that these products go to Europe and West Indies.

IV. Application:

Summarize in your notebook all the facts you have gathered to show why

1. The United States raises 75 per cent of hogs of world.
2. Why so many great meat-packing centers have developed in this region.
3. Why Europe is dependent on this region for food.

THIRD LESSON

Manufacturing:

What is the chief industry? Agriculture. Why? What industry is secondary? Why is it not so important an industry as in the northeastern United States?

What kinds of manufacturing developed because of great natural advantages? (Use Sec. 79 and Fig. 44 to develop this idea.)

Chief products: Meat, cereals, machinery, farm supplies.

What others? Automobiles; tires. Where does the rubber come from?

FOURTH LESSON

Review of Region:

1. Prove by maps and text that the last paragraph in Sec. 79 is true.
2. As this is the Corn Belt, and the great meat-packing region of the world, use facts developed as interpretative of European Corn Belt, showing why such a small area of Europe is devoted to corn, and hence her dependence on us and South America for meat, and for food for hogs and cattle.
3. In comparing with the East Temperate Agricultural Region of South America, develop the idea that although a great grazing region, it is dependent upon us for capital and machinery to develop the meat-packing industry.

5-B. Central Farming Region

Part 1. Prairie Corn and Small Grain Belt (Pages 36-50)

(For the teacher with abundant supplies of all kinds.)

I. Materials:

1. Books: See bibliography, p. 28.
2. Wall map: Goode's Rainfall Map of the United States.

3. Lantern slides loaned by Swift & Co. to show meat-packing industry. These illustrate:

- (1) The development of meat-packing industry.
- (2) The effect of refrigeration.
- (3) The rigid inspection of U. S. Government.
- (4) The development of by-product industries.

4. Pictures of machinery given by National Harvester Company. Write to the office of National Harvester Company in nearest city.

5. Stereographs showing corn, hogs, cattle.

NOTE.—Study of stereographs makes a good approach to the study of this region.

6. Advertisements in farm journals and *Country Gentleman* to show silos, machinery, etc.

7. Clippings from newspapers to illustrate hog, cattle, corn, oats stories.

8. Labels such as "Crisco", "Mazola".

II. Dominant Natural Factors:

1. A soil free from stone, good for crops, but bad for roads.
2. Surface, level or gently rolling.
3. Climate, favorable for farms and healthy for people.

Winter—land of frost and snow—5 months frost.
Summer—warm as that of Cotton Belt.
Rainfall—in summer, thundershower type; in other seasons, cyclonic.

NOTE.—Unless work in geography has been preceded by careful weather observation through 3d, 4th, and 5th grades, the teacher should precede the discussion of cyclonic storms by at least four weeks of weather observation. Use newspaper clippings for account of tornadoes, to develop difference between cyclone and tornado.

4. Navigable rivers.
5. Large area.

III. Work of a Great Natural Agent:

The glacier leveled the hills over a large part, producing a gently rolling surface, a distinct advantage for the use of agricultural machinery.

IV. Work of Human Agents:

1. Cleared ground.
2. Cut down forests.
3. Drained swamps and marshes.
4. Built roads and railroads.
5. Government gave free farms.
6. Invention of farm machinery: Reaper, binder, gang plow, disc harrow, automatic seeder, thresher, tractor.
7. Invention of cold storage and refrigeration.
8. Developed meat-packing industry.
9. Rotated crops.
10. Introduced silo.

V. Results:

1. The greatest food region of the North American continent.
2. The greatest Corn Belt in the world. United States produces about three-quarters of world's corn.
3. United States raises 75% of world's hogs.
4. Great meat-packing centers like St. Louis, Kansas City, Cincinnati, St. Joseph and Omaha have been developed.

VI. Comparisons:

1. Similar meat-packing centers being developed in South America by United States firms.

2. Agricultural machinery is being sent to Argentina, South Africa, Australia, Canada, England, etc.

NOTE.—The World War taught us the necessity for increasing the world supply of food. Use this region to prove that a good government plus a group of intelligent, educated, energetic people can help solve this problem by developing the resources to the highest degree.

6. Pacific Mountains and North Pacific Coast

(Pages 90–99)

It is suggested that two periods be given to the study of this region, the first to be devoted to the climate, the second to the resources of the region.

In preparation for this study, have the pupils indicate by means of colored crayon the extent of the region on an outline map of North America. See Fig. 14. Also assign Question 1 on p. 99 and have the locations there called for indicated on the outline map. The maps which have been used for the other Western Mountains and Plateaus will do for this purpose.

The Aim of the first lesson should be to develop in the minds of the pupils an idea of the causes of rainfall in its various forms through a study of the climate of this region.

An Approach to this lesson might be made by reviewing briefly Secs. 58 to 73. This review should be made with the books open and take the form of a simple explanation, preferably by the pupils, of the more important points here covered. Trace the path of the cyclonic storms and see that the westward movement of winds over the United States is clearly in mind.

Have Sec. 153 read, referring at each point to Fig. 158. Note how varied the rainfall is on the west coast in comparison with that on the east coast.

Locate on the outline map of North America, by means of shading, the region on the west coast receiving heavy rainfall; the region of lightest rainfall. (Figs. 144 and 158.) If possible have the pupils raise the question: "Why is it that there is so much rain west of the mountains while just to the east there is so little?"

It will add greatly to the interest of the lesson if the experiments suggested in the text are actually performed in class. If possible secure some cracked ice and salt. If this is mixed and placed in a glass or tin, the formation of frost may be seen very readily.

Following the experiments, have the text in Secs. 155, 156 and 157 read and discussed.

Before reading Secs. 158 and 159 it will be interesting to see if the pupils are able to answer the question: "Why do the Pacific Mountains have so much rain and snow, while the Basins have so little?" After the attempt has been made to answer this question, have the pupils verify their answers by reading Secs. 158 and 159.

At the conclusion of the lesson, have the pupils sum up in brief form a statement of the climate of this region together with the reasons for the same.

The second lesson on this region would be given over to a study of some of the natural resources of the region. There is ample material in the text and suggestions for investigation in the questions on p. 99 to occupy the time of the class for a number of periods. If but one period is available, it is suggested that the lesson take the form of a silent reading lesson. The material in the text is exceedingly interesting. The questions on p. 99 might be assigned to various pupils for investigation.

Compare the physical factors of this region,—location, elevation, temperature, soil, growing season, natural resources,—with those of the Florida Peninsula, the Cotton Belt, and so forth.

It would seem to be almost unnecessary to call attention to the splendid pictures illustrating this region. The teacher, however, should not forget that a good picture is often worth many pages of text. Each picture should be studied with care so that the pupils may be able to visualize at least to some extent the wonderful country about which they are studying.

The use of the geography notebook and bulletin board should be continued.

If lantern slides are available, or stereoscopic views, or motion pictures, they will form a most excellent means of review.

NOTE.—Lesson Plan No. 7 treats of the Forests of this region in detail.

7. Pacific Mountains—Their Forests

(Pages 92–96)

I. Dominant Factors:

1. Physical:

1. Climate: North of 50 degrees, winter long and cold. South of 50 degrees, winter slightly shorter and milder.
Summers warm and rainy.
Moisture abundant.
2. Surface: Rugged.
3. Soil: Rich, but latitude and altitude both too high for agriculture.
4. Transportation: Well developed and efficient; railroads operate in spite of barriers of mountain height and heavy snows.

2. Human:

1. Sparse population.
2. People in high state of civilization.

II. Resultant Activities:

1. Lumbering efficiently carried on.
2. Transportation highly effective.
3. What man has done to develop these possibilities:
 - (1) Set aside forest reserves.
 - (2) Established national parks.
 - (3) Evolved the system of forest conservation.

LESSON PLAN

I. Aim:

1. To show some salient facts about our forests: (1) beauty, (2) their usefulness, (3) their value.

II. Approach:

1. Interest the children by announcing that the lesson concerns a walk in the woods. If possible take the

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walk as a field excursion. If not, call on the experience of the children. The trend of the lesson will be guided by the region in which the lesson is given. It may be necessary to work from the basis of a deciduous to the coniferous forest. Make the home region the foundation of the lesson. The discussion might follow the outline given.

"My Walk in the Woods."

- (1) Judge size of area by length and time of walk.
- (2) General facts about trees: Size, height of trunk, spacing, condition.
- (3) Kinds of trees.
- (4) Underbrush.
- (5) Bird, insect and animal life.
- (6) Lumbering.
- (7) Absence or presence of other human beings.
- (8) Why the woods were allowed to remain.
- (9) Why is forest found naturally in this particular region?

III. Presentation:

Apply facts gained by informal discussion to the forests of the Pacific slope.

1. Examine Figs. 160, 161, 162, 164, 165, 168.
2. How do these trees compare with those in our neighborhood?
3. What kind of trees are they? Sec. 160. Note variety and size.
4. What makes them grow so tall and big? Sec. 160, Fig. 158. (Get definite facts about rainfall from Fig. 158 and Sec. 158.)
5. In what kind of region do these trees grow? Secs. 159 and 160; also Fig. 163. (Note also latitude and elevations from Figs. 163 and 167, and Sec. 160.)
6. Where are they found? Sec. 162.
7. Are these trees being cut wisely? Fig. 161-162; also Sec. 161, Fig. 166, and Sec. 208.
8. What dangers threaten these forests? Fig. 164.
9. How are the forests protected? Sec. 163.
Emphasize forest conservation, conservative lumbering, guarding against fires, replanting and close grazing.
10. To preserve lumber and also some scenic features, our Government has set aside some areas known as National Parks. If time permits, a lesson should be spent in each region, emphasizing its summer attractions for tourists; e. g., the Sequoias of California 6,000 years old.

IV. Application:

1. If children desire to find out more about their own type of forest, refer them to the Index.
2. The diagram in Fig. 166 may lead them to the Louisiana long leaf pine area.
3. If the objective is other coniferous areas, use the world map and locate by latitude. Then discuss necessary altitude, winds and rainfall, and density of population. When places chosen have been listed, an informal reading lesson will check the correctness of the choice. Among the regions may be Canada, pp. 161-162, 179-180; Europe, pp. 247-248.

8. Valleys of Central California

(Pages 108-114)

It is important that the dominant physical factors of this region be carefully taught the first time it is presented for the following reasons:

1. Every continent has a California-Mediterranean Region. (See Index.)

2. Such regions are becoming increasingly important economically as irrigation projects are developed.
3. A careful study of the European Mediterranean Region will give us a better understanding of the Latin Races in our own country and in South America,—a good basis for social study.
4. The history importance of the Mediterranean is based largely on geographical factors.
5. California is an excellent example of wealth derived primarily from climate.

I. Dominant Characteristics:

1. Climate:

A. "Mediterranean type."

1. Temperature: Little variation between summer and winter on the coast. Very high temperature in summer and mild winter for valley.

2. Rainfall: Summer drought and winter rains.

B. Cause:

1. Location:

- (1) Faces Pacific Ocean in belt of the westerlies. In winter, land is colder than the sea, hence rain in winter; also less range between summer and winter temperatures on coast in corresponding latitude in central and eastern United States.
(See S. B. & T.)

- (2) Valley between high Sierra and low Coast Range.

2. Surface:

Level; valley (except San Francisco Bay) a filled-in gulf due to stream erosion.

3. Soil:

Fertile deltas, free from stones (alluvial fans, the result of stream erosion).

4. Transportation facilities:

San Francisco has one of the finest harbors in the world, connected by transcontinental railroads and steamship lines with commercial cities of the United States; steamship lines connect it with all parts of the Pacific.

Near Panama Canal.

Faces Asia.

II. Resultant Activities:

1. Agriculture: One of the most important agricultural regions in the world.

Fruit is now the "king of California crops."

Other Products:

Vegetables; sugar-beet; rice; barley; alfalfa; wheat (declining in importance).

2. Canning and drying of fruits.
3. Sheep raising.
4. Mining: Gold and petroleum.
5. Manufacturing: Steadily increasing.

III. Further Activities of Man:

1. Irrigation projects.
2. Introduction of fruits and nuts from southern Europe, and dates from the Sahara.
(Emphasize work of the Department of Agriculture through its Bureau of Foreign Plant Introduction.)
3. Coöperative methods.
4. Continued experiments in solving the transportation problems.

5. Extensive advertisements, thereby inducing people to settle there.
6. Development of drying and canning.
7. Hydrostatic development.

LESSON PLAN

I. Aims:

1. General:

1. To give content to the phrase "Mediterranean type of climate."
2. To illustrate man's conquest of the climatic disadvantage for agriculture of "summer droughts and winter rains" by irrigation.
3. To show the dependence of colder countries upon subtropical countries.

2. Particular:

To understand the region.

II. Approach:

Study of labels on boxes and cans in a grocery store to list olives, figs, dates, cherries, apricots, oranges, lemons, etc. (Try to procure similar advertisements from the European Mediterranean.)

Use regional maps (or see Index) to develop the idea that California lies in five regions, "I. M. L. H. K." Study Fig. 163 to show how complicated the story of the surface is. Point out and name

1. Mountains: Sierra Nevada, Cascade, Coast, San Bernardino.
2. Valleys: Sacramento, San Joaquin, Death, Imperial.

What does the use of the word valley so frequently indicate?

FIRST LESSON

I. Aim:

To investigate physical factors that control this region.

II. Dominant Factors:

1. Climate:

Use Sec. 192 and Fig. 184 to locate the valley.
Study Figs. 327, 328, 329, Fig. G. APPENDIX, Part I.
Read Sec. 193.
Answer Question 6.

2. Surface:

Use Fig. 163 to show the numerous rivers whose source is in the Sierra Nevada Mountains, and which flow into the Sacramento and San Joaquin rivers.
Use Figs. 171, 179, 183, and Sec. 194, to show the effect of erosion on

1. Force of streams.

Why do so many rivers flow through canyons?

Use railroad advertisements to show that these have added to the beauty of the region, and hence are a source of income from tourists.

2. Formation of alluvial fans, and their advantage for irrigation.

Of what use is the heavy snowfall of the high Sierra?

3. Character of soil: Silt of alluvial fans; rich, fertile soil of tules, Sec. 201.

Summarize according to outline the physical factors of this region.

Use (a), (b), (c), (d), (e) of Question 1, p. 113.

SECOND LESSON

I. Aims:

To develop the idea that agriculture is the most profitable occupation.

To give content to the phrase, "Fruit is now the king of California crops."

II. Presentation:

1. Have children investigate history, Sec. 195, to show that until 1848 California consisted of—

- (1) A few trading posts.
- (2) A few missions.
- (3) Great grazing lands—Spanish grants.

2. Discovery of gold led to the development of transcontinental lines.

What was their effect on agriculture?

Study Secs. 196–201 with Figs. 187, 189, 193 to develop

- (1) United States formerly depended on Spain, Italy, Greece, for prunes, raisins, oranges, olives, etc.
- (2) Why California can supply U. S. to-day.
- (3) Advantages of coöperative methods. (Give content to words: coöperation; coöperative. Here is an excellent opportunity to show the social side of geography.)
- (4) Explanation of tule lands, and why they furnish us with spring and winter vegetables.
- (5) Advantage of dry summer for drying and canning industry. Sec. 193, Fig. 185.

THIRD LESSON

I. Rice Region:

Where is the oldest rice region of the United States? See Cotton Region. Use Fig. 195 and Sec. 202 to show the development of this industry. Good illustration of man's development of a region by introducing new crops. During recent famines in China, California sent rice to the starving people.

II. Population and Industries:

How does Sec. 203 show effect of increase of population on changing industries? Compare with Central Farming Region to show why corn is not raised; hogs. Point out the advantages of raising barley and alfalfa?

Why has California declined as a wheat-growing state?

Answer Questions 6 and 7.

III. Manufacturing:

Study Sec. 205 and Fig. 194 to show how agriculture and manufacturing help each other.

How is the character of the manufactured goods of this region changing?

Show the effect of petroleum and hydroelectric power. Compare with New England-Canadian Maritime Region?

Where would the people of San Francisco or Sacramento get their shoes, hats, gloves, furniture? What do they send to the people of Boston, New York, or St. Louis?

Use Questions 3 and 5.

FOURTH LESSON

Transportation:

To show the advantages of this region as listed under controlling physical factors.

Study Fig. 163 to develop advantages of San Francisco for trade. Interpret "to Yokohama 4791 miles." Use Fig. 9 to show the chief articles of trade and their destination.

Of what advantage is the nearness of the Panama Canal for carrying fruits and vegetables?

Use Appendix to find the rank of San Francisco among

1. The world's greatest seaports.
2. United States seaports.
3. Compare Figs. 196 and 278, 186.
4. Try to get pictures and descriptions that emphasize the beauty of the harbor.
Why is it called the Golden Gate?
Answer Question 8.

Application of all the Lessons

1. The present importance of the region to (a) California; (b) to the people of the United States; (c) to the people of your vicinity.
2. The contrast between the region's conditions and those of regions previously studied.
3. The composite character of the United States.
4. The Japanese immigration problem.

NOTE.—In using this region as a basis for the study of the Mediterranean Region of Europe, Asia and Africa, develop the idea that historically it is more important, but economically the California Region far surpasses it. Stress the following points:

1. That it is one of the oldest regions of the world, and California one of the newest.
2. That it was once the greatest trade route of the world. To-day the Pacific is becoming increasingly important.
3. That once it furnished us with our oranges, lemons, etc. Now its chief market is northern Europe.
4. That it lacks lumber, so must buy from us the boxes, crates, etc., to pack its fruit.
5. It lacks coal, and if it wishes to develop manufacturing must use hydroelectric power, for which it has great possibilities.
6. It is densely populated; so its people are migrating to the empty lands of the United States and South America to develop them. A decided loss to developing the industries of their own country.
7. That California is less dependent on other regions than this Mediterranean because the people are so much more energetic in developing the resources.

The Australian-Mediterranean Region, pp. 418–420, although similar in climate, and for similar reasons has gone through the same stages of development that California has, is not so important commercially, due to the following facts:

1. Lack of water supply: Mountains are not high enough for summer snow fields, hence irrigation projects are more difficult.
2. She is remote from European markets.

9. New England-Canadian Maritime District (Pages 128–135)

A type of region bordering on the sea, with cool climate, and long winters.

A region of changing industries and changing people.

The study of this region is important because it illustrates:

1. The evolution of a region from the fishing and lumbering stage to a highly developed, complex manufacturing stage.

2. A region in which the people live mainly by import of food and raw materials and the export of manufactured goods of highly specialized character.
3. The kind of farming most profitable in regions with large urban population—truck farming and dairying.

I. Controlling Factors:**1. Physical:**

1. Work of the great glacier as shown in: surface, hilly; soil, stony; rivers, many waterfalls; lakes, numerous (former river valleys); coastline, rugged.
2. Climate: Short summers, long, cold winters (snow-fall in northern Maine over 100 in.); favorable for the development of physical and mental energy.
3. Forests: Large part of area still covered with valuable evergreen trees.

2. Human:

1. Early settlers: English and Scotch, a sturdy, thrifty, inventive group; fishermen, shipbuilders, traders, merchants, scholars.
2. Later immigrants: Irish, Italians, French from Canada (factory workers—skilled labor).
3. More recent immigrants: From southern Europe and western Asia (factory workers).

II. Resultant Activities:**1. In the early days:**

1. Fishing (rugged coast, cold seas, race of fishermen).
2. Lumbering.
3. Shipbuilding.
4. Farming: small farms producing barely enough for needs of farmer.
5. Manufacturing: In homes—shoes, nails, beaver hats, etc. These and fish formed a basis for trade with the West Indies, which sent back rum, sugar and molasses, the luxuries of those days.

2. In recent times:

1. Manufacturing: In cities; great variety; highly specialized.
2. Farming, dairying and truck farming.
3. Lumbering.
4. Shipbuilding.
5. Fishing.

FIRST LESSON

NOTE.—Discuss meaning and use of Maritime. Correlate with word-study by study of marine, mariner, submarine and aquarium.

I. Aims:**1. Particular:**

1. To develop the reasons why manufacturing especially, but also fishing and lumbering, are more profitable in this region than agriculture.
2. To contrast the character of farming in this region with that in our great Wheat and Corn Belts.

2. General:

1. To develop the idea that a specialized form of agriculture—truck farming—is profitable in regions with big industrial centers.
2. To develop the effect of the great glacier on the physical features and resulting activities of a region.

II. Approach:

1. Problem developed by study of Fig. 314.

2. Why is this a region of dense population? (Compare with regions formerly studied.)
3. Why are fishing and lumbering profitable in this region?

III. Map Study:

1. Location:

1. Use Figs. 210 and 214 to study location of Region P.
2. Use Fig. 216 to name states and provinces included. Place in outline map.

2. Surface:

1. Use Sec. 235 in connection with Figs. 53, 25, and 83 to illustrate rugged land, and to contrast with level land.
2. Again use Cotton, Corn, or Wheat Belt to develop the difference between the advantages of level land over rugged land for farming.

3. Rivers:

1. Name the rivers of this region. Put them in outline map.
2. What use can be made of them in rugged lands?
3. How did this use affect farming?
4. Use Secs. 236, 245, 246, 247 to develop the kind of farming that is most profitable.

4. Climate:

1. Fig. 210—latitude.
2. Fig. 215.
 - (1) Snowfall: Winters are long and severe, hence disadvantageous for farming.
 - (2) Moisture of climate favorable for cotton spinning.
 - (3) Summer climate, cool. New England and Canada attract tourists.

NOTE.—If possible use pictures that illustrate the beauty of this region.

5. Lakes:

1. Point out and name numerous lakes.
2. How do they show the effect of glacier?
3. Emphasize the fact that they add beauty to the scenery, and are used by summer cottagers and campers.

6. Character of coastline:

Use Fig. 202 and Sec. 233 to develop the idea of:

1. Rugged coast (give content of the word "rugged" by explanation and illustration).
2. Many good harbors. Compare with southern coast to develop the idea that there are more good harbors on this coast than on the southern. (Teacher use S. B. & T., pages 514-534.)
3. Children point out and name from Fig. 210 such harbors as Boston, Portland, Halifax. Place them in outline map.
4. Why is Maine called "The State of a Hundred Harbors"?
5. Summarize in short phrases the effect of the glacier on these regions.

IV. Human Factors:

1. Study Figs. 120, 314, Appendix 11, to develop idea of small area and dense population.
2. Compare density of population of Massachusetts with Iowa and North Dakota.
4. Use Sec. 237 to develop the following facts:
 - (1) What people first settled here?
 - (2) Find names on map that suggest it.
 - (3) What evidence have we that Indians once lived here?
 - (4) Point out on the map of Europe the countries from which most of the people come to buy who settle in New England.

- (5) See if you can find out something about "Child Labor" in these mills.
- (6) Watch advertisements and labels to find something that is manufactured there.
- (7) From Secs. 238 to 244 tell the particular kind of manufacturing done in each city. Place these cities on your map.
- (8) Answer main problem, also problem with reference to Boston. (Massachusetts, the Beehive of Industry, in National Geographic, March, 1920, has excellent illustrative material.)
- (9) Summarize by use of Questions 1, 2, 5, 13, and 18.

SECOND LESSON

I. Aim:

To show the advantage of this region for fishing. Illustrate the dependence of other regions, but particularly the tropics, on this region for salt fish.

II. Approach:

Review question: What occupation is the most profitable in this region? Why?

III. Presentation:

To arouse interest,

1. Read a selection from Kipling's "Captains Courageous," or Whittier's "Fishermen."
2. Bring out the advantage of good harbors and cold water for fishing. Fig. 223.
3. What do you mean by "Grand Banks"?
4. Mark on your outline map four fishing ports named in Sec. 234.
5. Ships of Europe, West India, and South America are dependent on this region for salt fish. What do they bring in return?
6. Use Figs. 9 and 210 to show Halifax as a port.
7. Sec. 240 will tell you something about the whale-oil industry. Why has this industry declined? (References for teacher: Moby Dick, by Melville; Story of Oil, by Tower.)

THIRD LESSON

I. Aim:

To develop the idea that regions thinly settled are apt to develop a variety of industries not important from a money sense, but valuable because they contribute to the six needs of mankind.

II. Class Study:

Read Sec. 247; list special products; mark in outline map.

Use Fig. 210 to show destination of some of these products.

Every year a fur auction is held at St. Louis. What contribution could this region make?

FOURTH LESSON

I. Aim:

To show advantages of this region for trade and transportation.

1. What physical factors studied in the first lesson made these people traders?
2. Did the fact that they were English people have any effect upon the development of trading?
3. What do you mean by "their ships sailed the Seven Seas"?
4. Why do you find old Chinese jars and curious shells in New England and Nova Scotia houses.
5. What did their ships carry? Where did they go?

III. Presentation:

1. Locate Hoosac Tunnel. What necessity was there for connecting Boston with Buffalo and the West? (Bring out the dependence of densely populated

regions upon less densely populated regions for food and raw materials.)

2. Hunt in your newspapers for advertisements of ocean liners sailing from Boston, Portland, Halifax, St. John. Place on map. Use Figs. 9 and 210 to show Boston's development as a port due (Fig. 221) to

- (1) An excellent harbor (emphasize sunken coast; contrast with harbors of South Atlantic Coast).
- (2) Nearness to Europe.
- (3) Nearness to such manufacturing centers as Lynn, Brockton, etc.
- (4) Variety of products.
- (5) Rail connection with the great food centers of the Central Farming Region.

IV. Summary:

1. By answering the problem stated at beginning of series of lessons.

NOTE.—This region can be used as a basis for developing the dominant factors of similar regions engaged in

- (1) Manufacturing; as the Northern Piedmont, Appalachian Region, the United Kingdom, or Japan.
- (2) Fishing; as Labrador, Newfoundland, and Green Northlands.

2. It may be used for comparison with agricultural regions as the Central Farming and Northern Wheat, to develop the difference in the type of agriculture that is most profitable.

10. Appalachian Region

Parts I, II, III, IV

(Pages 145–157)

In preparation for the study of this region, have the pupils indicate the extent of the region by means of colored crayon on an outline map of the United States. By using four different colors it will be possible to indicate the four sections into which this region is divided. In connection with the preparation of the map, assign Sec. 272 for home reading, directing special attention to Fig. 241.

The first lesson of the series on the Appalachian Region will be on the Great Valley. The Aim of the lesson will be to show how a natural condition, the presence of limestone, not only has resulted in the formation of the Great Valley, but also has been the most important factor in determining the conditions of living in this region.

The Approach to the lesson might be made by having the pupils examine a piece of limestone and compare it with some other stone, granite for example. Note the comparative softness of the limestone. Examine Figs. 236 and 241. Bring out the fact that the Great Valley has been made by the wearing away of the limestone by water. Read Sec. 275.

Secs. 273 to 281 should then be read. This may be done silently, the pupils reading the text for the purpose of filling in some such outline as that suggested in Question 3, p. 151, or to secure the answers to questions prepared by the teacher. The important rivers and cities, together with the principal

products of the Great Valley, should be indicated on an outline map of this region.

The second lesson of the series will be that on the Appalachian Ridges and Valleys. The principal subject for discussion in this lesson will be coal.

Have the pupils read Secs. 282 to 289, and then prepare the answers to Questions 2 and 4 on p. 151. Samples of anthracite and bituminous coal should be examined by the pupils. The pictures in the text should be studied carefully. Material illustrative of this region should be collected for the geography notebooks and the geography bulletin board.

The third lesson might be spent very profitably in considering Secs. 290 to 293, inclusive, and also Secs. 302 and 304. This study will cover the Allegheny-Cumberland Plateau, and also the Carolina Mountains, leaving the consideration of Pittsburgh for the last lesson.

Have Sec. 290 read, the several sections there referred to looked up, and the Allegheny-Cumberland Plateau marked on the outline map. Next have Sec. 304 read, and the location of the Carolina Mountains indicated on the outline map. The remaining paragraphs indicated for this lesson should then be read. Wherever possible, comparison should be made between the surface and productions, and manner of living, with the Appalachian Ridges, the Great Valley, and other regions. See Question 2, p. 156.

Have pupils work out the answers to Questions 6, 7, 8, 10, on pp. 156 and 157.

For the fourth lesson we have left to consider Secs. 295 to 301, inclusive, and Sec. 303.

Our Aim in this lesson will be to see how certain natural conditions have led to the growth and development of a great city.

Begin by having the pupils locate the city of Pittsburgh on the map, Fig. 204. Note the number of rivers and natural highways which converge at this point. How did these rivers determine the original site of the city of Pittsburgh? Sec. 85.

Examine Fig. 44 for the distribution of coal and petroleum in the vicinity of Pittsburgh.

Examine Fig. 80. Note the distribution of iron ore in the vicinity of Pittsburgh. Also Fig. 273.

What effect would this near supply of coal and iron have on the city of Pittsburgh? Read carefully Secs. 295 to 297.

Compare the mining of bituminous coal with that of anthracite, Sec. 298.

What use do you make of the oil which is obtained near Pittsburgh? Locate another great source for this kind of oil? Compare the two regions?

Use should also be made of the questions listed on pp. 156 and 157. These questions may be assigned to individual pupils, who should work up the answers and report their findings to the class.

Constant use should be made of the pictures, maps and diagrams in the book. Additional pictures and other material should be collected for the geography notebooks and bulletin board. If a lantern, stereoscopes, or motion pictures are available, they will be found invaluable in the teaching, and also most helpful as means for review.

11. Great Northern Forest

(Pages 179-181)

I. Physical Factors Controlling this Region:

1. Climate:

Latitude the determining factor, a region of long, severe winters with heavy snowfall.

Result: growing season too short and cool for even hardy grains to develop. Southern boundary marks the northern limit of the farm belt.

2. Surface:

Bears evidence of the work of the great glacier as shown by numerous lakes, waterfalls and rivers, and rough stony surface.

II. Resultant Activities:

1. Lumbering:

A great forest region, the home of a few Indians. White man uses it to procure lumber.

2. Trapping and hunting:

Animals, especially of fur-bearing variety, still to be found. Indians excellent trappers and hunters. Hudson Bay Company still exists.

3. Summer pleasure-ground for white man:

Canada has everything to offer—woods, lakes, streams, solitude.

4. Mining:

Inaccessibility of region a great drawback to development of mineral wealth.

Most important minerals: silver, gold, petroleum.

LESSON PLAN

1. Approach:

Read Sec. 348, and have class locate region.

2. Climate:

Use Fig. 14 and Sec. 348 to mark boundaries. Emphasize fact that it lies between the "land of farms" in the south and treeless plains of the north. Explain or review phrase "timber line." Use Figs. 127, 168, and 400, or National Geographic, August, 1922, to illustrate the effect of altitude.

Use Figs. 300 and 553 to contrast with tropical forests.

3. Surface:

Use Figs. 14 and 53 and facts developed in the study of the New England-Canadian Maritime Region to show effects of the great glacier. Place Great Bear Lake, Great Slave Lake, Lake Athabaska, Reindeer Lake, Lake Winnipeg, on outline map.

Note numerous rivers. What would be their character? Stress economic value of water power. Sec. 352.

4. Effect of these physical factors:

1. Population, scanty. Develop by the study of Fig. 236 and Sec. 348. Select adjectives—vast, gloomy, lonely, pathless—to emphasize the idea.

2. Occupations:

(1) Lumbering: Sec. 349. Explain the phrase "great wood reserve of North America." Why is it not likely that lumbering will give way to farming as it has in the United

States? Describe a lumber camp in winter; in spring. What advantages have these lumbermen over those in the Rocky Mountains? What use is made of the timber?

Show how densely crowded cities like London or New York must depend on this vast lonely region for paper for magazines and newspapers.

Put Yukon, Mackenzie, Saskatchewan, and Nelson rivers on your map to locate sawmills and pulp mills.

Answer Question 3.

(Reference for teacher: Slosson's Creative Chemistry, Chapter on Cellulose.)

(2) Hunting:

Use Question 5.

Every year at St. Louis, Mo., a fur auction is held. What regions would supply many of the skins? Who will wear them? Why are they so expensive? Why are Indians the best trappers and hunters?

(3) Fishing:

Point out the advantages of this region as a playground for people living in crowded cities with hot summers.

Read Sec. 350.

(4) Mining:

Answer Question 4.

Print silver, gold, petroleum on map. (Standard Oil Company is operating in the Mackenzie Basin, and copper is being mined north of Great Bear Lake.)

Answer Question 1.

5. Summary:

How many of the six needs of mankind does this region supply?

Answer Question 7.

Plan a camping trip in this forest region. What would you need to bring with you?

Why do the people speak French?

12. Arctic Pastures, Polar Seas, and Polar Ice Caps

(Pages 181-186)

I. Dominant Factors:

1. Physical:

1. Climate: intensely cold; few weeks of thaw; slight rainfall or snowfall.

2. Surface: ice-covered or marshy plains in Arctic except Greenland, which is an ice-covered plateau; high, ice-covered plateau in Antarctic.

3. Soil: deep on tundras, but thin in Antarctic.

2. Human:

Sparse nomadic population of low civilization; man dependent on animals for food.

II. Resultant Activities:

1. Natives live by hunting and fishing.

2. Practically no agriculture.

III. What Man has Done to Develop the Possibilities:

1. Introduced reindeer farming.

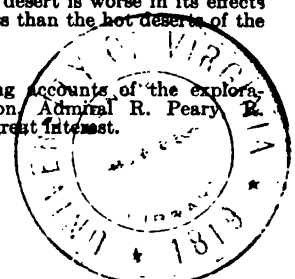
LESSON PLAN

I. Aim:

To show that a cold desert is worse in its effects on man and his progress than the hot deserts of the world.

II. Approach:

The many interesting accounts of the explorations by V. Stefansson, Admiral R. Peary, E. Amundsen, all arouse great interest.



III. Presentation:

1. Location and extent of areas—Figs. 289, 290, Sec. 360.
Note latitude, territories, islands and political regions concerned. Contrast Arctic and Antarctic.
2. Causes of cold deserts:
 - (1) Latitude and altitude from maps, Figs. 289-290.
 - (2) Change of seasons; Sec. 355.
 - (3) Resultant change in vegetation, Sec. 355.
 - (4) A land of ice, Sec. 358.
3. Animals of this desert:
 - (1) Land: wild and domestic, Sec. 358.
 - (2) Water: Sec. 359.
4. People of the cold desert:
 - (1) The Eskimo, Sec. 357.
 - (a) Appearance, Fig. 292.
 - (b) Occupations, Sec. 357.
 - (c) Future, Sec. 357.
5. Difference between Arctic and Antarctic regions; Sec. 360.

IV. Summary:

To summarize this lesson, an outline might be made by contrasting the two desert types in the following particulars, thus accomplishing the aim:

Kind of desert	Cause	Appearance	Animals	People	Occupations	Future
Hot Desert..						
Cold Desert..						

13. Trade of North America

(Pages 197-202)

This lesson, coming at the close of the treatment of the continent of North America, may be made to afford an excellent opportunity for a review of the continent. As such, the amount of time which could be spent upon this topic would be limited only by the time at the teacher's disposal. On the other hand, if it were treated simply as a lesson by itself it might even be covered in one period. It is suggested that so far as possible the former treatment be considered. In this case the text of Secs. 392-398 becomes of least importance, and serves merely as an introduction to the review which is organized around the topic of the Trade of North America.

The Aim of this series of lessons will be to review the continent of North America through a consideration of the trade relations of the several regions.

An approach might be made by having the pupils read Secs. 392 to 394. This reading should be accompanied by discussion based on the pupils' knowledge of the history of the country, bringing out the idea of the recent strides made in machinery of all kinds, transportation, and communication.

The idea of the division of industries among the several regions of the country should be brought out. Develop the thought that while it would be quite

possible for the people in many of the regions to be self-supporting, yet the enjoyment of the many things which we have to-day is due to this division of labor. Carry over this idea to our relations with people in other parts of the world. The method should be conversational. The pupils should be encouraged to make suggestions and contributions, and to raise questions.

All pupils should work together in the preparation of the answers to Questions 1 and 6, p. 202. The remaining questions should be divided among the class for study and report.

The reviewing of shipping centers and the highways of trade will afford an excellent opportunity for the review of the more important cities, industrial centers, rivers, etc. Verbal locations should not be required, but the pupils should be able to locate quickly on the map the important locations. This work might be motivated by having the pupils prepare for a little play or a pageant in which the different members of the class could represent the various sections of the country, and bring to Uncle Sam and Miss Columbia their offerings.

14. High Mountains of Europe

(Pages 250-258)

I. Aim:

To develop the general physical features of this region and their effect on the activities of the people.

II. Approach:

1. Stereographs, lantern slides, and postcards of the highlands of Europe.
2. Teacher state: Some one has used the phrase "Gifts of the Mountains." What does it mean?
3. Study these mountains to find what gifts they bring to Europe, and to compare with mountains of North America.

III. Map Study to Develop:

1. Location:
 - (1) Use Fig. 395 to locate and name the four divisions of the mountain wall in Southern Europe and Scandinavia.
 - (2) Emphasize them as boundary lines. Point out on wall map of Europe.
 3. Place in outline map. Name countries separated.
2. Effect on communication:
 - (1) Compare with North America to show advantages of Europe for communication.
 - (2) What man has done: roads, tunnels. (Get tourist or railroad maps and name tunnels and passes.)
(See S. B. & T. for effect of passes on history.)
3. Effect on rainfall:
 - (1) "Both sides of five great ranges are swept by rain-bearing winds." Explain.
 - (2) What winds?
 - (3) What evidence of the effect of sufficient rainfall do you find in pictures? (If possible use stereographs or lantern slides as well as pictures in text to emphasize this.)
 - (4) Look at Figs. 160, 161, 162, and 165 to recall effect of westerlies on rainfall of our north-west.

- (5) Study and compare the latitude of the two regions.
- (6) Use Fig. 403. Why does less rain fall on Caucasus than on Alps and Pyrenees?
- (7) Answer second part of Question 6.
- (8) Use Fig. 319 and descriptive geography to illustrate height.
- (9) Questions 4 and 10.

IV. Application:

1. Bring out fact that people live on lower slopes or in valleys.
2. Make a drawing to illustrate a three-story farm.
(Teacher read chapters in Brunhes' Human Geography and Semple's Influence of Geographic Environment showing effect of mountains on people.)
3. In notebook list the gifts: snow, rivers, rain, grass, animals, forest, fuel.

Part I. The Alps

I. Dairying:

1. From study of Figs. 396 to 404, state your impressions of the Alps. What should Figs. 394, 319, 325 tell you about them? Why must notices be published in three languages?
2. Use Appendix, pp. 7 and 8, to compare
 - (1) Area and population of Switzerland and United States:
 - (a) Switzerland, 236 per square mile.
 - (b) United States, 36 per square mile.
 - (2) Value per capita of imports and exports:
 - (a) Switzerland, \$220.80.
 - (b) United States, \$105.34.
3. Is it a rich or a poor country?
4. What lesson can we learn from the Swiss? Thrift.
5. What natural factors make us wasteful and the Swiss thrifty?
6. Study text carefully to bring out idea of
 - (1) Small per cent of valuable land due to surface and altitude.
 - (2) Effect of climate on
 - (a) Summer and winter industries.
 - (b) Sports.

II. Manufacturing:

1. Study Fig. 397 for water power.
2. Where in the United States do we use "white coal"?
3. Study Sec. 498 to bring out the character of raw materials.
4. How do the Swiss overcome the lack of raw materials?
5. What adjectives would you use to describe these people?
6. Locate Berne, Lucerne, Zurich. Try to find something interesting about these cities.
7. Why are they centers of manufacturing, trade, and travel?
8. Answer Question 19.
9. Tourist industry, Sec. 499.
10. Select words and phrases from your own book or other books about Switzerland to show why travelers love to go to Switzerland.
11. Are there any Switzerland in North America?
12. Answer Questions 15 and 18.
13. What are some of the dangers and hardships of Swiss life?

III. Application:

1. Use Index to find what other countries of Europe are noted for dairying.
2. What states of the United States?
3. Make a brief comparison with one of these countries or states.

4. What is the relationship between our Cotton Belt and Swiss manufacturing?

Thrift Lesson

1. Study Secs. 495-497 to bring out the idea of conservation.
2. What have we done to preserve our forests?
3. Answer Question 5.
4. See that your class plants a tree next Arbor Day.

Part II. The Pyrenees and Cantabrians

Salient points of this lesson:

1. Study Sec. 504 to explain what is meant by a "national, racial and language boundary."
2. Sec. 505 shows effect of isolation.
3. Have we any similar region in our country?

Part III. The Carpathians

Salient points of this lesson:

1. Explain "island of forest in a sea of farms" to show the gift of these mountains.
2. What do we fatten hogs on?

Part IV. The Caucasus

Salient points of this lesson:

1. Why do we find wild animals here that have disappeared from the rest of Europe?
3. Emphasize the complexity of the races, and develop reasons for the backwardness of the people.
4. If peace could be maintained, what gifts would these mountains give to people?
5. Locate Tiflis, and find its population in the Appendix. With what American cities does it compare in population? Are these in mountainous parts?

Part V. The High Mountains of Scandinavia

- I. Study Fig. 330 to show the difficulty of farming in this region.

What effect has it had upon these people to overcome these difficulties?

Why do they make such good citizens in our country?

Why do so many of them settle in the Northern Wheat Region?

II. White Coal:

What is the great gift of the mountains to these people? (Fig. 405.)

Sweden has good iron ore. She sends much of it to England. Why?

What will she be likely to do in the future?

What illustration of conquest of environment do you find in Sec. 509?

Look at Fig. 261. What cities in the United States are lighted by power from Niagara Falls? Find some cities in Europe that are lighted by electricity developed from water power.

Application of all the Lessons:

In notebook

1. Summarize all the gifts of the mountains to Europe. Find pictures and paste under each gift to illustrate it.
2. On a map of Europe mark the black coal fields and the white coal fields.
3. Answer the third part of Question 6.
4. Answer Question 13.
5. These three problems are suggested for classes of unusual ability:
 - (1) Why has Europe no hot desert region? Every other continent has.
 - (2) What would be the effect on Europe if a high mountain wall ran along the western coast? What gifts of the mountains would you

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have to omit from your list? (This would make an excellent review project, as it could be used as a basis for comparison with the United States.)

- (3) Why have the Swiss never taken an interest in colonization?

15. The Great Hot Desert and Its Oases

(Pages 284-298)

I. Dominant Factors:

1. Physical:

1. Surface characteristics: generally level; bare rock or blowing, drifting sand dunes; occasional coarse tufts of grass and clumps of thorn bushes; dry water courses; oases near springs welling from under ground.
2. Climate: intense aridity due to hot winds blowing across land toward equator. Great difference in temperature between day and night; sudden sand storms; very rarely rain storms.
3. Soil: fertile but non-productive because of aridity; vegetation adapted to dry environment.
4. Transportation: by camel caravan; railroads being constructed to slight extent.

2. Human:

1. Nomadic people winning their existence by wandering from spring to spring with scanty flocks of sheep, goats, camels, donkeys and horses. Forced by rigors of circumstance to plunder and rob when in need. Struggle has produced a hardy, cruel, inherently clever people. Oasis dwellers are chiefly farmers.

II. Resultant Activities:

1. Some desert traders and carriers.
2. Home industries: spinning wool and grinding meal.
3. Raising camels and horses.
4. Intensive agriculture in oases.

III. What Man has Done to Develop Possibilities:

1. Oasis development:

1. Intensive agriculture in smaller oases.
2. Adaptation and cultivation of plants inured to aridity.
3. Crops necessary to world raised in quantity on larger oases—dates, grapes, and olives.
4. Export of crops brings trade and progress.
5. Some mineral industries—oil and phosphate rock.
6. Beginning of railroad transportation from coast to oases.

IV. Limitations of Progress in Desert:

GENERAL PLAN

I. Aim:

(Several lessons will be needed.)

To understand the nomad (his character, occupation, his mode of life) as being a direct result of his bleak, arid, unfavorable environment.

II. Approach:

1. Call the attention of the class to the pictures of the camel in the text, Figs. 443, 446, 457, and any others in the teacher's possession or gathered by class. The camel is called "The Ship of the Desert." Ask why this title seems appropriate.
2. Either by question and answer method, or socialized recitation, develop information suggested in the following outline.

III. Presentation:

1. The plants and animals of the desert, Secs. 574, 575.
 - (1) Appearance.
 - (2) Food.

(3) Habitat.

(4) Adaptation to environment.

2. The people who own and use these animals.

- (1) Nomads, Secs. 576, 583.
 - (a) Necessities.
 - (b) Occupations.
 - (c) Lack of possessions.
- (2) Town dwellers.
 - (a) Need for protection, Sec. 577.
 - (b) Response to this need, Sec. 583.
- (3) The oasis dwellers.
 - (a) Their occupations, Sec. 578.
 - (b) Their possessions, Sec. 578.

3. The region which produces and molds these people:

- (1) The hot desert. Ask for children's ideas and descriptions.
 - (a) Its location, Sec. 568.
 - (b) Its cause:
 - Aridity—Sec. 569.
 - Weather peculiarities, Secs. 570, 571.
 - Latitude, Fig. 445, p. 287.
 - (c) Its appearance: Secs. 568-574.

4. The "Emeralds" (oases) of the desert.

- (1) Egypt, the world's greatest oasis, has been called "the gift of the Nile"—Sec. 587.
 - (a) Former glory, Sec. 588.
 - (b) Present prosperity, Sec. 589.
 - (c) People of Egypt: character, Sec. 587; occupations, Sec. 589; homes, Sec. 589.
 - (d) Modern Egypt.
 - Agricultural prosperity, Sec. 590.
 - Industrial advance, Sec. 590.
 - Large cities, Sec. 591.
 - Engineering project, Assuan Dam, Sec. 592.
 - (e) Contrast and compare the lower Nile with the lower Mississippi Valley.
- (2) Mesopotamia: also might be called "the gift of rivers."
 - Consult map Fig. 474, and name the rivers.
 - (a) Former glory, Sec. 593.
 - (b) Modern changes, Sec. 593.
 - (c) Some resources.
 - (a) Agricultural, Sec. 593.
 - (b) Others, Sec. 594.

VI. Application:

If the foregoing outline has been used as a basis of work by the children, making each division the subject of committee report delivered to the class and discussed in class, it should be a comparatively simple matter to get well-delivered, logical reports on any other of the great hot deserts of the world: the Kalahari Desert, pp. 371, 372; the Australian Desert, p. 424; the Southwestern American Desert, pp. 85-89; the Pacific Coast Desert (Chilean), pp. 407, 408.

16. High, Dry Plateaus and Mountains of Central Asia

(Pages 316-318.)

I. Dominant Factors:

1. Physical:

1. Climate: extremes of temperature; aridity; heavy snow in winter.

2. Surface: high plateau shut in by higher mountain wall.
3. Soil: unproductive, due to lack of moisture.
4. Transportation possibilities: lacking, except for a few caravan routes.

2. Human:

1. Population: sparse and isolated, not social; ignorant and poverty-stricken.

II. Resultant Activities:

1. Dominant industry: herding.
2. Other industries:
 - (1) Irrigation: occasional irrigated districts due to the small streams fed by melting snow.
 - (2) Commerce: trading by caravans.

III. What Man has Done to Develop these Possibilities:

1. Practically no development excepting where minerals are discovered.

LESSON PLAN

I. Aim:

To understand to what extent plateau dwellers overcome the handicaps of elevation and aridity in the dry plateaus of the world.

II. Approach:

1. Mt. Everest Expedition: Human Geography, Book II, p. 317, or newspapers printed about July 15, 1922, and later reports.
 - (1) Object.
 - (2) Route—Fig. 468, p. 304.
 - (3) Difficulties.
 - (4) Accomplishments.

Problems:

Why are the thinkers of the world so much interested in Mt. Everest?

Why did this expedition set out from the Indian side?

Was the expedition a failure even though the summit of Mt. Everest was not reached?

III. Presentation:

1. Various other expeditions to explore this region have been planned. Among them one to start from Lhasa (Map, p. 311). This was abandoned as impracticable. Why?

Why did the present expedition not set out from the Tibetan side of the Himalaya Mountains.

 1. Where is Tibet? P. 317:

In relation to southern plateau; Fig. 474.

As a political unit; Fig. 471.

As a region; Figs. 469 and 474.
 2. What is Tibet? Pp. 317, 318.
 3. Size: Map, Fig. 474; Appendix, p. 9.
 4. Neighboring regions of the same character.
 5. Surface:

Elevation, Fig. 474.

Peaks, Fig. 474.

Appearance, Figs. 481, 468, and text p. 317.
 6. Climatic factors:

Effect of elevation; p. 317.

Effect of mountain wall; p. 317.

Winds—monsoons; p. 319, Sec. 646.

(Do the monsoons help make life more livable for the people of Tibet.)

(Do the monsoons help make life more livable for the people of Tibet.)

Extremes of climate; Sec. 641.

Rainfall; Fig. 473.

Additional Problems:

1. How are other sections of the plateau area of central Asia like Tibet in surface and climate? How different?
2. How many people live in this forbidding region? How do they make a living?
 - (1) Number: Appendix, p. 9. Determine density of population, and compare with United States.
 - (2) Occupations and characteristics: Sec. 641. Why are there no imports and exports for Tibet listed on p. 9, Appendix?
3. What communication have the people of Tibet with the outside world?
 - (1) Rivers: Fig. 529.
 - (2) Railroads: Fig. 529.
 - (3) Roads: Fig. 497.
4. Do the people of Tibet send any products to the world's market? Fig. 482.
 - (1) Name some kindred animal products.
 - (2) What must the Tibetans buy? Fig. 497.
 - (3) Is Tibet a profitable customer for the world's storekeepers, John Bull, Uncle Sam, and others?

IV. Generalization or Application:

(Pointing out similar regions.)

There are other high, dry plateaus where the people also have a continual struggle to make a living.

1. One of these is the Plateau of the Central Andes, p. 405.
 - (1) Of what race are the people here? Sec. 848.
 - (2) Upon what animals do they depend? Sec. 847.
 - (3) How does their land compare with that of Central Asia?
 - (a) In appearance, Sec. 849.
 - (b) In elevation, Sec. 850.
 - (c) In development, Sec. 849.
 - (d) In climate: rainfall, winds, temperature, Sec. 850.
 - (4) Have the people made any progress in developing their land? Secs. 851, 852.
 - (5) What products do they send to market?
 - (6) Which of these have not as yet been found in the Plateau of Central Asia?
2. There is a high, dry plateau in our own country. What part of North America is included? P. 85.
 - (1) Compare this with the plateau of Central Asia:
 - (a) In elevation, Sec. 143.
 - (b) In appearance, Figs. 148, 150A, 150B; also Fig. 146, p. 85.
 - (c) In climate, Sec. 143, rainfall, Fig. 144.
 - (2) Do the people most resemble those of the Andean or the Central Asian Plateau?
 - (a) In race, Fig. 148, Sec. 146.
 - (b) In occupations, Secs. 146-148.
 - (3) What four chances does Mother Nature give human beings in this region to make money? P. 89.

V. Summary:

1. Of the three dry plateaus, in which has man made the greatest strides toward overcoming the natural handicaps?
2. Which of the three is most visited by tourists? Why?
3. Which has the brightest prospects for increase in population and resources?
4. What industries have plateau dwellers developed in spite of hardships and handicaps? How do their

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conditions of life compare with the plain dweller, the desert dwellers, and the mountain people?

17. East Temperate Agricultural Region of South America

(Pages 394-399)

I. Dominant Factors:

1. Physical:

1. Surface, rolling plain.
2. Climate: four seasons; mild winters; rainfall varying, lessening with the increase of distance from the ocean; winds, partly in region of westerlies.
3. Soil: rich; free from stones.
4. Forests: clumps along streams; greatest area from southern Brazil to the River Parana. Chief trees, quebracho and pines.
5. Transportation: best developed in South America; railroad net; steamship routes on navigable streams; excellent facilities for handling freight; the airplane.

2. Human:

1. Progressive, stable population: Spanish and Indian origin; Portuguese in Brazil.
2. European immigration: German, Italian, and Spanish.

II. Resultant Activities:

1. Ranching: great sheep and cattle ranches.
2. Agriculture: wheat, corn and flax seed for export; fruit and sugar by irrigation in the northeast.
3. Forestry: some lumber export to South American countries.
4. Manufacturing: meat preparation and tanning extract.
5. Commerce: export, bulk food stuffs; imports, textiles, machinery, package, canned and bottled goods.

III. What Man has Done to Develop these Possibilities:

1. Divided land into large ranches.
2. Subdivision into farms begun.
3. Government encourages home seekers by liberal terms and grants.
4. Building of railroads and establishment of industries by foreign concessions.
5. Establishment of extensive freight and commercial facilities.

LESSON PLAN

I. Aim:

To teach that the broad open temperate plains of the world will primarily be grazing regions. Later, developed by man's ingenuity, they will become the world's centers of progress and civilization, with emphasis upon agriculture and commerce and some attendant manufacture.

II. Approach:

1. Arouse interest by calling this the land of the cowboy. Prove title by pictures, stereographs, lantern slides. Call attention to Figs. 586, 590, 594.

III. Presentation:

1. Ask the children to jot down in shortest possible form the answers to the following questions:
 - (1) What is the character of the country? Is it hilly, rolling, or absolutely flat?
 - (2) Why is Pampas (grassland) a good name for this region?
 - (3) Are the farms large or small?
 - (4) What animals are seen?

- (5) Are the forests extensive, widespread or in clumps?

- (6) What do you judge to be the cause of the abundance of grassland and the relative absence of forest south of the Parana River?

- (7) What use did man make of this region when he first found it?

- (8) What use is he likely to make in the future?

2. For their sources of information, refer them to the following parts of the text:

- (1) For topography, map, Fig. 566.

- (2) For climatic features, Sec. 824.

- (3) For resources:

Soil, Sec. 826.

Grass, Sec. 825.

Forests, Secs. 830 and 831.

- (4) Occupations: Let class look up the correct sections for ranching, agriculture, meat industry, manufacturing.

- (5) Modern progress, Secs. 832 and 827.

- (6) Some hindrances to progress:

In agricultural system, Sec. 828.

In ownership and management of public utilities, Sec. 828.

3. Read to class any good description of the Argentine region, and check their response by occasional questions or suggestions, with final checking up by reference to text. The following selection is thought to bear out the lesson plan.

From "Vagabonding Down the Andes" (Frank):

"From now on the great Argentine pampas grew ever broader, slightly rolling here, stretching away to infinity on each hand. The brick red soil was given over to grazing rather than to agriculture, though we passed long Autumn dry corn fields, the ears broken half open and hanging over to ripen. Cattle were everywhere, and the cowboys were roping them here and there. Through the train windows the horizon of the great rising pampas continually rose and fell. Sometimes it was punctuated with a grove of trees, more rarely with a small forest, the chiefly unfenced plains everywhere sprinkled with cattle."

Check:

- (1) How does this compare with your idea about the South Temperate Agricultural Region of South America?

- (2) What would such a region have to send to the world market?

- (3) What countries buy most from Argentina, and why? Sec. 826.

- (4) Note value of imports and exports, in Appendix.

- (5) How do products reach the ports? Fig. 610; Secs. 865, 866; Figs. 590, 609.

IV. Application:

How to use this plan in interpreting similar regions. Another traveler, Bryce, in *Impressions of South America*, says this:

"In the River Plata Region there is little natural beauty and nothing that recalls the past. All is modern and new, all belongs to the prosperous present and betokens a still more prosperous future. It is the United States of the Southern Hemisphere."

Check:

1. To what part of the United States does he refer?

2. Trace the similarity: topography, resources, and development, Sec. 74, and future, Sec. 78.

3. Note the somewhat similar region of Australia, Secs. 879, 880.

V. Summary and Drill Exercise:

The questions at the end of the regional treatment, or the following:

1. Class Assignment: Fill in the following blanks (Teacher note information in Sec. 833):
In the East Temperate Agricultural Region of South America, the strong points for agriculture are; the weak points are
2. The defect of scenery is
3. Answer the following problems:
 - (1) Explain how plains are able to support nine-tenths of the human race.
 - (2) Why did Armour & Co. build a ten-million dollar packing plant in this region? In answering—
 - (a) Note the requirements for a successful animal raising industry.
 - (b) How the southeastern agricultural region measures up to these requirements.
 - (c) Was the adventure justified by returns? Sec. 829, p. 397.
 - (3) An American traveler brought home from Argentina at the Christmas Holidays a box of cherries in perfect condition. What possibility does this suggest to you?
 - (4) What story might your shoes tell you of Argentina?
 - (5) In what part of Argentina would a city dweller of the United States feel most at home?
 - (6) Why does Argentina attract settlers from south Europe rather than the Scandinavians?
 - (7) What is Germany's chief interest in the Argentine? Great Britain's? Japan's? United States?

18. A Project

A project to develop the idea that countries like England and Japan, of small area and dense population, dependent on the rest of the world for food and raw material, may develop into countries of world importance because of the energy of the people.

A. The United Kingdom as an Illustration.

A study of the region "United Kingdom" should precede the project and suggest the following problems:

1. Why has a small country like England been able to impress its language and civilization on such a large part of the world?
 2. "The sun never sets on the British Empire." Is that literally true?
 3. Up until the World War, London was the greatest banking center of the world. Why?
- Such a study should have developed these facts about England:

I. Her Disadvantages:

1. Size (50,900 square miles—a little less than Alabama).
2. Small area of arable land.
3. Dense population (668 per square mile).
4. Hence necessity for importing food and raw material.

II. Her Advantages:

1. Location: Insular position; near to mainland of Europe, an advantage for trade; but far enough removed from the continent to give her freedom from continental wars and opportunity to develop her industries.

2. Coast line: Excellent harbors.

3. Climate: On windward side of continent; in belt of cyclonic storms; favorable for physical and mental development of the group.

4. Resources: Abundance of iron and coal.

5. Transportation facilities: Short distance from interior to coast; no high mountains.

6. People: Energetic, inventive, fearless; explorers, traders, settlers, shipowners, soldiers, inventors. The density of population gives great advantage [for procuring labor for manufacturing.

III. Chief Results:

1. Until 1740 (era of coal), England's chief occupations were fishing, sheep and cattle raising, manufacturing of wool in the home.
2. Invention of steam engine and machines for spinning and weaving cotton, various discoveries in the manufacturing of iron and steel combined with her physical advantages (See list) gave her in the 19th century:
 - First place in world in cotton manufacturing.
 - First place in world in iron manufacturing.
 - First place in world in steel manufacturing.
 - Changed her population from few in cities to densely crowded cities, like Manchester, Birmingham, and Sheffield.
 - Made London the money center of world.

LESSON PLAN

I. Aim:

To use facts developed in study of United Kingdom as a basis for stating the problem:

Why England with a small area and dense population has been able to develop into a great world power?

II. Approach:

Read Kipling's poem "The Ships"* to develop the idea of England's dependence upon "Big Steamers" to bring her food from all over the world; that they carry coal that helps pay for the food, and that there is a navy to protect the steamers. This will suggest these questions:

1. Why is she so dependent for food on the outside world?
2. Who makes the steamers? What do they carry on outbound voyages? What do they carry on inbound voyages?
3. Why she needs a navy.

III. Development:

1. To answer Question 1:

- (1) Use Appendix to show small area and dense population.
- (2) Use Secs. 420 and 425 to show crowded cities. P. 17 of Appendix will show population of London. (Compare with population of New York City.)
- (3) Use Fig. 10 to name and locate colonial possessions. Emphasize the fact that empty lands like Australia and Canada supply her with food.
- (4) Use Figs. 9, 21 and 566 to show what her ships bring from United States and South America to feed her people.
Excellent illustration of the dependence of densely populated regions of the world on empty lands.

2. To answer Question 2:

- (1) Note the advantage of coal near the sea. Emphasize the advantage of coal fields of Wales.
- (2) What does she need besides coal? Chiefly iron, Fig. 335, Fig. 344; cotton, Fig. 29; wool, Fig. 339.

*Rudyard Kipling's Verses (1921 edition), Doubleday, Page & Co.

- (3) Look in index and on regional map. Find out where she gets them.

(4) Results:

London center of world trade. (Use Appendix, p. 12, to show value of shipping.)

Liverpool greatest cotton market of world. (Compare with other great ports.)

England our best customer for cotton (Fig. 338); Manchester (Sec. 422) as the great cotton manufacturing center. Why? Yorkshire a great woolen center; Birmingham, iron; Sheffield, steel.

Place these cities in your outline map.

- (5) Read Kipling's "The Secret of the Machines."

3. To answer Question 3:

- (1) Explain the phrase: "England is the world's storekeeper." Develop idea of protection needed for her merchant marine, traders, settlers, colonists, explorers, her "far flung battle line."

- (2) How does the story of Sir Stamford Raffles illustrate the effect of climate?

- (3) Read Kipling's "The Glory of the Garden." (Emphasize lesson of service that it teaches.)

4. Answer the problem.

III. Application to History:

1. Find out all you can about the Magna Charta. How does it illustrate the effect of physical factors in developing a love of freedom? Show that it is the forerunner of our own Declaration of Independence.

B. Japan as an Illustration

I. Aim:

To interpret the phrase, "Japan, the England of the Pacific."

To show that in spite of her disadvantages, Japan had a prominent place at the peace table at Versailles and the Disarmament Conference at Washington.

II. Approach:

Discuss what factors make a nation a great power.

Why should Japan be placed among the great powers? (Discourage offhand statements. Make children realize necessity for knowing facts before making decision.)

III. Development:

Use plan similar to that outlined in the study of England, listing Japan's advantages and disadvantages as follows:

1. Japan's advantages:

1. Location: Near mainland of Asia. Results:

- (1) Favorable for Asiatic trade.
- (2) Many good harbors.
- (3) Fishing important as food and money crop.
- (4) Develops fearlessness in people.
- (5) Need of navy.
- (6) Freedom from wars on continent, making it possible to develop industries.

2. Climate:

- (1) Favorable for agriculture, except in north. A warm growing season with monsoon rain favorable for rice. Cyclonic storms, bringing rain in winter and spring, favorable for winter wheat, barley, and rye.
- (2) Favorable for health. Japanese are energetic, industrious, and ambitious.

3. Chief resources for manufacturing: coal, silk, bamboo, clay, copper.

4. Population:

- (1) Dense (370 per square mile). Cheap labor, an advantage in a region where intensive agriculture is necessary; also favorable for manufacturing.

- (2) Highly artistic: Japanese make a distinct contribution to the world's demand for beautiful things.

- (3) Developing an empire by establishing colonies in regions that will supply her with food and raw material.

2. Japan's disadvantages:

1. Location: Remote from the great ports of the world, as London, Seattle, San Francisco, etc., on which she must depend for the bulk of her trade.

2. Surface: Hilly and mountainous; volcanic; less than one-sixth suited to agriculture.

3. Climate: Typhoons in late summer or early autumn do much damage to shipping.

Results of 2 and 3:

- (1) Japan lacks work animals; must utilize every bit of land for raising food for people.

- (2) Rivers during rainy season become raging mountain torrents, a drawback to transportation.

- (3) Many earthquakes.

4. Population:

- (1) Density of population makes food problem a pressing one; hence the aggressive policy of Japan. Hungry Japan looks with longing eyes on the empty lands of Australia, United States, Canada, and South America, or the near-by provinces of Manchuria and Korea.

- (2) Imitative but not inventive; must depend on countries like the United States, England, and Germany for machinery and partly manufactured goods.

- (3) Japanese lack the pioneer spirit.

5. Disadvantages for manufacturing

- (1) Iron lacking. Result, endeavors to gain possession of Shantung.

- (2) Did not enter the modern world until the middle of the 19th century, after Europe and America had gained a foothold.

NOTE.—This outline is for the use of the teacher. It is expected she will use the maps, pictures, and text of the book to motivate her work. Divide the class into two groups, one representing England, the other Japan, each group emphasizing the advantages and disadvantages in a spirit of rivalry. To add interest use the following suggestions: Each group either use the flag of the country or draw and color it. Child representing England dressed in English costume. Let one child representing Japan wear the costume of old Japan, and another the new. Each group bring illustrative material to make contrast, as, for instance, in comparing the manufactures, the English group bring steel knives, samples of gingham, woolen cloth; the group representing Japan, raw silk, fan, lacquered box, porcelain, to show old Japan. To show new Japan, cotton goods, matches, etc.

19. Some Suggestions for Reviews and Drills

Although provision has been made in the type lessons for summaries of facts and applications of principles, yet it may not be amiss to suggest that the most important result to be attained is to give skill in discovering the principles that govern the development of a region and in applying them to a new region. Also there is no surer way of contributing to the pleasure of the child and developing a spirit of self-reliance and independence than by increasing that skill through repetition.

The following list will serve to emphasize this idea:

1. Maps: board outline, desk outline, sketch maps to emphasize salient point developed in lesson. Do not overemphasize technical skill.
2. A review question to form a connecting link with preceding lesson.
3. Associated problem for supervised study period.
4. Newspaper and current topics to be explained from knowledge and power obtained in preceding lessons.
5. Projects worked out in manual arts.
6. Dramatization.
7. Story,—*E. g.*, "Experiences of a Miner"; "Trip to a Cotton Field."
8. Reports of field excursions used as summaries of lesson; *i. e.*, report on the making of butter after a visit to a creamery. Summarize the series of lessons on dairying.
9. Making experiments in the growing of wheat, corn, peanuts.
10. A chapter of a book that illustrates some salient geographic feature.
11. Description of a movie,—*E. g.*, The grizzly giants illustrating forestry on the Pacific Coast.
12. Making posters.
13. Original magazines, scrapbooks, geographies.
14. Visits to exhibits and museums.
15. Formation of clubs in which topics of the classroom form the basis for discussion.
16. Blank space exercises to be filled in such as Question 1, p. 113.
17. Charts such as Question 7, p. 103.
18. Graphs from statistics to illustrate values and amounts similar to Fig. 193.
19. Table making a comparison as Question 4, p. 117.
20. Read a description of a region with names of places omitted; children tell what region is described, and give their reasons for making conclusion.
21. Select from a large number of pictures or lantern slides the ones that best illustrate the day's lesson.

V. A GRAPHIC STATEMENT OF REGIONAL GEOGRAPHY

HUMAN AGENCIES	NATURAL FACTORS	HUMAN NEEDS
1. Citizenship: Co-operation. Intelligence. Government.	1. Relative Position. 2. Elevation. 3. Growing Season. 4. Moisture. 5. Soil.	1. Food. 2. Fuel. 3. Clothing. 4. Shelter. 5. Tools.
2. Communication: Trade. Transportation. Good Neighbors.	6. Natural Resources: Above Surface: Grass, Timber, Rivers, Lakes. Below Surface: Coal, Iron, Oil, etc.	6. Luxuries: Pleasures. Refinements.

The above is a key showing definitely how two Human Agencies utilize six Natural Factors to establish Human Activities to supply six Human Needs, thus producing something of value to *use* or *sell* to other regions.

VI. A Key to the Economic Regions of the World, Human Geography, Book II

The study of the world by natural regions affords splendid opportunity of comparing one region with another, and of showing how the physical factors which control the industries of their inhabitants vary in each. A region once studied should be used as a type for similar regions in other parts of the world.

In this key, the economic regions of North America are arranged as prototypes of regions in other continents. In many cases, the natural factors are identical; in others, the natural factors are identical or similar but the human agencies are different, hence the human life varies with the human agencies. These similarities or differences are clearly explained in the text by content, maps, graphs, and questions.

The numbers in the Key refer to pages in Book II. A few of the regions are counted twice.

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NAME OF TYPE IN NORTH AMERICA	N. A.	SIMILAR TYPES IN OTHER CONTINENTS					Total
		Europe	S. A.	Asia	Africa	Aus.	
Arctic Regions and Antarctic.....	181	249	...	308	...	...	3
Great Northern Forests.....	179	247	...	308	...	...	3
Northern Wheat Regions.....	55	245	...	312-334, 332	...	...	5
Columbia Basin.....	78	...	...	...	...	...	1
Central Farming Region.....	36	268	394	...	...	421	4
Cotton Belt Region.....	22	...	...	337, 294	...	...	3
California-Mediterranean Region.....	103-108	273	407	273	368	418	7
High Mountain Region.....	72-90	250	401	334	...	...	5
Great Basin.....	78	234	...	314	371	424	5
Southwestern Plateau.....	85	...	400	298	369	424	5
Great Plains.....	64	...	394	312	...	424	4
Puget Sound-Willamette.....	114	214	407	...	...	428	4
Florida Peninsula.....	16	...	...	392	369	422	4
Tropical Forests.....	...	...	381	...	354	...	2
Tropical Grasslands.....	...	...	388	...	360	...	2
Lower Rio Grande Valley.....	100	284	...	...	...	...	2
West Indies.....	193	...	...	341	...	431	3
High Plateau.....	...	...	401	316	...	...	2
Ozark-Ouachita Region.....	157	263	...	...	...	...	2
Green Northlands.....	90	210	...	...	...	...	2
Newfoundland-Labrador.....	135	210	...	...	...	...	2

The above regions are the raw-product regions of the world. The following are the Trading-Transportation-Manufacturing Regions:

NAME OF TYPE IN NORTH AMERICA	N. A.	SIMILAR TYPES IN OTHER COUNTRIES					Total
		Europe	S. A.	Asia	Africa	Aus.	
Erie Canal Belt Region.....	173	214	...	318	...	...	3
Great Lakes and St. Lawrence.....	163	225-232	...	...	...	...	3
Manufacturing-Agriculture.....	{ 138-145 118-128 }	259	...	...	...	...	5

In each region the Dominant Factors, the Principal Activities, the Human Agencies at work are considered.

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Our New World: 11, 24, 33, 70, 94, 100

Studying the World by Regions: 10, 27, 31, 40, 44

THE SOUTHERN AND CENTRAL PLAINS:

The Florida Peninsula: 10, 27, 35, 44, 64, 67, 68, 89

The Cotton Belt: 18, 21, 27, 29, 44, 59, 69, 85, 86, 96, 97

The Central Farming Region: 24, 27, 32, 33

The Northern Wheat Region: 12, 37, 67, 71, 85, 87, 91

The Great Plains and Lower Rio Grande Region: 14, 32, 37, 56, 67, 87, 90, 102

WESTERN MOUNTAINS AND PLATEAUS:

The Southern Rocky Mountains: 10, 21, 29, 32, 34, 64, 67, 82

The Columbia Basin and the Great Basin: 12, 36, 90, 102

The Pacific Mountains and the North Pacific Coast: 6, 10, 21, 32, 52, 64, 68, 73, 82, 92, 95

THE VALLEYS OF THE PACIFIC COAST: 14, 22, 29, 32, 34, 37, 42, 64, 90, 102

THE NORTH ATLANTIC COAST DISTRICTS: 17, 32

The North Atlantic Coast Plain: 12, 18, 36, 37

The New England-Canadian Maritime District: 21, 26, 36, 60, 69, 70, 94

THE EASTERN AND CENTRAL UPLANDS: 32, 34, 36, 60, 62, 64, 93, 97

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